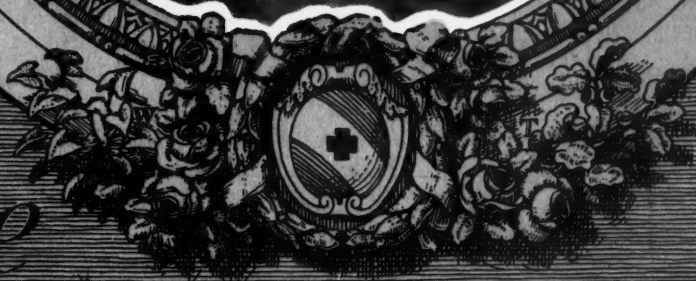


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MARCH, 1934

No. 3

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THE MODERN HOSPITAL

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How Unemployment Affects Illness and Hospital Care

By EDGAR SYDENSTRICKER

Director, Public Health Activities, and

G. ST. JOHN PERROTT

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WE MUST leave to others the solution of the economic difficulties of the hospital during hard times. We have pertinent data to present, however, which are of interest in connection with present day hospital problems. These data show the results of a survey of the extent of illness and of hospital care, both pay and free, in surveyed families of wage earners in seven large cities—Baltimore, Birmingham, Cleveland, Detroit, New York, Pittsburgh and Syracuse.

The survey was undertaken early in 1933 by the United States Public Health Service in cooperation with the Milbank Memorial Fund as a house to house canvass to obtain data on sickness among those elements of the population that had borne the brunt of the depression. A total of about 12,000 families in ten localities were enumerated during the survey. This paper presents preliminary data on seven of the surveyed cities including 28,959 individuals in 6,686 families.

Districts were selected in the poorer sections of the cities. Well-to-do sections were avoided because the dwellers in these areas, however much their incomes may have decreased, were presumably living above any scale that might involve real

deprivation of the things necessary to health. On the other hand, slum areas were also avoided. The survey was interested mainly in individuals who were unemployed and living on restricted incomes because of the depression, as distinguished from those of the unemployable type who are subjects for charity in both good and bad times.

Living side by side with families of the unemployed were families, even in these poor districts, that were still in reasonably comfortable circumstances, that is, they apparently had adequate food, clothing and shelter. These "comfortable" families serve as a control group whose illness record can be compared with that of families in a state of comparative poverty for one or more years prior to the survey. It should be emphasized that in the selected districts every family was included unless the information was refused and refusals were exceedingly rare.

The information called for in the inquiry included (1) occupation, wages and regularity of employment of each wage earner for each year from 1929 to 1932, as well as family income from sources other than wages; (2) nativity, racial stock and education of husband and wife; (3) a

complete census of the household with birth date, sex and marital status of each member, and (4) illness of each member during the three months prior to the enumerator's visit, together with the extent of medical, hospital, nursing and dental care.

Inquiry was made about illness from all diseases and accidents, including mild as well as severe cases. What was included as illness was to a con-

TABLE I—ILLNESS AND UNEMPLOYMENT					
<i>Employment Status of Wage Earners in 1932</i>	<i>Illness Rate per 1,000 Persons for Three-Month Survey Period</i>				<i>Popu- lation Observed</i>
	<i>Onset Within Period</i>		<i>Onset Prior to Period</i>		
	<i>All Illnesses</i>	<i>Dis- abling Illnesses</i>	<i>All Illnesses</i>	<i>Dis- abling Illnesses</i>	
No employed workers	191	132	104	58	3,545
Part-time workers only	167	104	93	46	10,970
Full-time workers with or without part-time workers	131	84	74	38	14,444

siderable extent a matter of what the informant, usually the housewife, remembered and designated as such. Hence the records of disabling cases are probably better measures of real sickness than are the total cases, because the disabling illnesses are more likely to be accurately and completely reported. A case sufficiently severe to be disabling or to confine the individual to his bed within the three months of the interview is likely to be remembered, while many minor ailments are forgotten and are not mentioned to the enumerator.

Illnesses are classified as having (1) onset within the survey period and (2) onset prior to the survey period. Each of these groups is shown as (a) all cases, (b) disabling cases, consisting of those causing inability to carry on their usual activities, and (c) cases in which the patient was confined to bed for one or more days. All bed cases are included in the disabling class.

The illness rates are for the three-month period of the survey and are not reduced to an annual basis. The survey period refers to the three months prior to the enumerator's visit; it is the period for which illness data were recorded.

In Table I the incidence of illness is shown for three groups of the surveyed population classified according to employment status of the family wage earners in 1932. Here is seen a striking relation between illness rate and family standard of living as indicated by employment or lack of employment.

Considering all illnesses, that is, nondisabling and disabling, which had their onset within the three months' survey period, the illness rate is 46 per cent higher in families having no employed

workers (191 cases per 1,000) than in households having full-time workers (131 per 1,000). Disabling illnesses show an even larger difference. The rate of disabling illnesses is 57 per cent higher in families having no employed workers (132 per 1,000) than in families having full-time workers (84 per 1,000). Illnesses with onset prior to the survey period, largely chronic, show the same trend but to a lesser degree. Unemployment and high illness rates evidently go hand in hand.

In Table II the families have been arranged in three groups classified according to annual income per capita in 1932: (1) poor, under \$150; (2) moderate, \$150 to \$424, and (3) comfortable, \$425 and over per capita per year. Per capita income has been used in this study rather than total family income because it better represents the standard of living of the families. The terms "poor," "moderate" and "comfortable" have been used as convenient labels to designate the different income groups and have no other significance.

The table shows for the poor group a total illness rate (166 per 1,000) that is 28 per cent higher than that of the comfortable group (130 per 1,000). Disabling illnesses show an even greater difference—108 per 1,000 for the poor as compared with 80 per 1,000 for the comfortable group, a difference of 35 per cent. The illnesses with onset prior to the period, largely chronic, show little change with income. These results agree with those of the grouping by employment status that poverty in 1932 was associated with a high illness rate.

The years between 1929 and 1932 witnessed tremendous changes in family income, largely in a

TABLE II—ILLNESS AND 1932 INCOME					
Annual Family Income per Capita in 1932	Illness Rate per 1,000 Persons for Three-Month Survey Period				Popu- lation Observed
	Onset Within Period		Onset Prior to Period		
	All Illnesses	Dis- abling Illnesses	All Illnesses	Dis- abling Illnesses	
Poor, under \$150	166	108	85	44	12,506
Moderate, \$150 to \$424	146	92	82	41	12,538
Comfortable, \$425 and over	130	80	91	45	3,915

downward direction. Not all of the families that were poverty-stricken in 1932 were accustomed to this misfortune. As a matter of fact, only 23 per cent of the persons in families classified as poor (under \$150 per capita income) in 1932 were in this class in 1929. Of the remainder, 20 per cent were classified as comfortable (\$425 and over) in 1929 and 57 per cent as moderate (\$150 to \$424). The illness rates of groups of individuals who had

TABLE III—ILLNESS AND CHANGE IN ECONOMIC STATUS, 1929-32

<i>Economic Status¹ in:</i> <i>1929 1932</i>		<i>Illness Rate per 1,000 Persons for Three-Month Survey Period</i>				<i>Popu- lation Observed</i>
		<i>Onset Within Period</i>		<i>Onset Prior to Period</i>		
		<i>All Illnesses</i>	<i>Dis- abling Illnesses</i>	<i>All Illnesses</i>	<i>Dis- abling Illnesses</i>	
Persons With Diminishing Income, 1929-32						
Comfortable	Poor	200	134	107	57	2,513
Moderate	Poor	159	101	77	39	7,109
Comfortable	Moderate	149	95	87	46	6,101
Persons With No Material Change in Income, 1929-32						
Com- fortable	Com- fortable	132	82	90	45	3,672
Moderate	Moderate	142	89	76	38	6,139
Poor	Poor	151	101	87	46	2,884

¹Poor = under \$150 annual per capita income.
 Moderate = \$150 to \$424 annual per capita income.
 Comfortable = \$425 and over annual per capita income.

various economic experiences during the depression are shown in Table III.

Here the striking fact is shown that the highest illness rate was experienced by the group which had suffered the largest lowering of income between 1929 and 1932, namely, the "comfortable in 1929, poor in 1932" group. This group showed a rate of disabling illness (134 per 1,000) 63 per cent higher than that of their more fortunate neighbors (82 per 1,000) who had suffered no material drop in income, the "comfortable in 1929 and 1932" group, and 33 per cent higher than that of the chronic poor (101 per 1,000), the "poor in 1929 and 1932." The group which had dropped from moderate to poor exhibited a rate of disabling illness (101 per 1,000) 13 per cent higher than that of the group which had remained in moderate circumstances for all four years.

We have seen that more sickness was found among families of the poor in the surveyed group than among families in moderate or comfortable circumstances. What was the relative amount of hospital care received in the different income groups? This is shown in Table IV expressed in terms of (1) percentage of cases of illness—all illnesses onset prior and within the period—receiving hospital care¹ and (2) days of hospital care¹ per 1,000 persons, both sick and well.

The percentage of cases receiving hospital care, both pay and free, was highest in the poor group (8.4 per cent) and lowest in the comfortable group (6.0 per cent). Pay care showed a reverse trend, being lowest in the poor group (1.2 per cent) and highest in the comfortable group (3.3 per cent).

¹Exclusive of cases lasting ninety days, the entire survey period, who were largely chronic patients in public mental and tuberculosis sanatoriums.

For the whole group, all incomes, the percentage of cases of illness hospitalized was 2.1 per cent pay, 5.3 per cent free, 7.4 per cent total. The free care was thus nearly 75 per cent of the total.

The same trends are evident in the days of hospital care received per 1,000 persons during the three-month survey period, the poor group receiving a total of 323 days per 1,000 persons and the comfortable group receiving a total of 187 days. Free care was 87 per cent of the total days in the poor group, 66 per cent in the moderate group and 50 per cent in the comfortable group.

Obviously the poor in 1932 did not receive less hospital care than was customary in a group of wage earning families of the type surveyed. On the contrary, a greater percentage of their illnesses were hospitalized and more days of hospital care were received per 1,000 individuals, both sick and well, than in the case of their otherwise more fortunate neighbors in comfortable circumstances. While the poor paid for less care than the comfortable, they obtained so much more free care that the total hospital care was more adequate.

In Table V the relation is shown between hospital care and income change between 1929 and 1932. Here, for example, we may examine again the group which was poor in 1932 (under \$150 annual per capita income) which are now divided into the chronic poor who were poor in 1929 and 1932 and two groups of the depression poor, "comfortable in 1929, poor in 1932" and "moderate in 1929, poor in 1932." For the whole group (Table

TABLE IV—HOSPITAL SERVICE AND 1932 INCOME

Annual Income per Capita in 1932	Percentage of Illnesses Receiving Hospitalization ¹			Days of Hospital Care per 1,000 Persons for Three- Month Period		
	Pay Care	Free Care	Total	Pay Care	Free Care	Total
Poor, under \$150	1.2	7.2	8.4	43	280	323
Moderate, \$150 to \$424	2.7	4.0	6.7	78	154	232
Comfortable, \$425 and over	3.3	2.7	6.0	93	94	187
Total (all incomes)	2.1	5.3	7.4	65	201	266

¹Exclusive of cases hospitalized 90 days (the entire survey period) who were largely patients in public mental and tuberculosis sanatoriums.

IV), 8.4 per cent of the illnesses were hospitalized and 323 days of hospital care were received per 1,000 persons during the three-month survey period. From Table V we see that the chronic poor had the highest percentage of illnesses hospitalized (10.6 per cent), of which over 90 per cent was free care. Considering the newly poor, the comfortable-poor showed 6.7 of the illnesses hospitalized, of which 85 per cent were free care, and the moderate-poor showed 8.1 per cent, of which 83 per

cent were free. Apparently the new poor had not made as good connections with sources of free care as had those who had been in straitened circumstances for a long period of time.

If we may assume that families which showed little change in economic status obtained in 1932 about the usual amount of hospital care for families of their income level and social class, comparison between these groups and those which suffered reduction in income is of interest.¹ For

days per 1,000 cases. These differences in receipt of hospital care between the groups that suffered little change in economic status and those that were reduced to the poverty level are largely due to an increase in the amount of free care received by the latter group.

Thus, internal comparisons among various groups of the surveyed population do not indicate any reduction of hospital care among victims of the depression, but rather an increase of care over that to which they had been accustomed.

No attempt has been made to compare the data with that of other surveys because of the lack of comparability between surveys covering different periods of time. The relation between the number of acute and chronic cases varies with the length of time covered by the survey. In a one-day survey the chronic cases greatly outnumber the acute, while in a one-year survey the acute cases predominate. Hence it will be realized that internal comparisons within the present group are more reliable and accurate than comparisons with other surveys differing in technique and time period covered.

Chronic Poor Had Highest Hospital Record

This paper has presented a preliminary analysis of a house to house canvass made in seven large cities to show the amount of sickness and of hospital care in wage earning families severely affected by the depression. The preliminary results have shown that a high rate of illness is associated with unemployment and with low per capita income. The highest illness rate was among the newly poor who had been in relatively comfortable circumstances in 1929. Their rate was higher than that of their more fortunate neighbors who had suffered no material reduction in income and higher than that of the chronic poor who had been in straitened circumstances even in 1929.

The data show no evidence that less hospitalization than usual was obtained by the group but they do indicate that a large proportion of the cases, 50 to 90 per cent, were hospitalized without cost to the patient. The chronic poor showed the highest percentage of cases of illness hospitalized. Families which had suffered loss of income during the depression, the depression poor, received more hospital care than families which had not suffered loss in income, with the exception of the chronic poor who had little income to lose. Thus internal comparisons among various groups of the surveyed population indicate that an increase over the customary amount of hospitalization was received by families reduced to poverty during the economic depression,

TABLE V—HOSPITAL SERVICE AND CHANGE IN ECONOMIC STATUS, 1929-32

Economic Status ¹ in:		Percentage of Illnesses Receiving Hospitalization ²			Days of Hospital Care ³ per 1,000 Persons for Three-Month Period		
		Pay Care	Free Care	Total	Pay Care	Free Care	Total
1929	1932						
Persons With Diminishing Income, 1929-32							
Comfortable	Poor	1.0	5.7	6.7	51	326	377
Moderate	Poor	1.4	6.7	8.1	45	245	290
Comfortable	Moderate	3.1	4.3	7.4	99	164	263
Persons With No Material Change in Income, 1929-32							
Comfortable	Comfortable	3.1	2.8	5.9	95	101	196
Moderate	Moderate	2.4	3.4	5.8	59	121	180
Poor	Poor	0.9	9.7	10.6	29	329	358

¹Poor = under \$150 annual per capita income.
Moderate = \$150 to \$424 annual per capita income.
Comfortable = \$425 and over annual per capita income.

²Exclusive of cases hospitalized 90 days (the entire survey period) who were largely patients in public mental and tuberculosis sanatoriums.

example, the comfortable-comfortable, those who remained in the comfortable class, showed 5.9 per cent of illnesses hospitalized and 196 days hospital care per 1,000 persons while their unfortunate neighbors, the comfortable-poor, those whose status changed from comfortable to poor, received more care by both criteria, 6.7 per cent illnesses hospitalized and 377 days care per 1,000 persons. Likewise, the moderate-moderate showed 5.8 per cent illnesses hospitalized and 180 days care per 1,000 persons, while the moderate-poor had 8.1 per cent illnesses hospitalized and 290 days hospital care per 1,000 persons.

To correct for difference in illness rate between the various groups, the days hospital care may be calculated per 1,000 cases of illness, that is, all illnesses both hospitalized and nonhospitalized. When this is done, the same trends are evident: comfortable-comfortable, 880 days hospital care per 1,000 cases of all illness; comfortable-poor, 1,222 days per 1,000 cases; moderate-moderate, 821 days per 1,000 cases; moderate-poor, 1,231

¹This assumption, it is fully realized, is open to criticism. Even in four years hospital care has undergone changes unrelated to the economic depression. But it is the best comparison we can make and is, we believe, justified on broad grounds.

A New Hospital—Five Years Later

Far more helpful than any glowing description of a new and untried plant is Mr. Smith's "Five Years Later." Here he tells what features really worked and what ones had to be changed in the new institution of which he wrote so proudly in 1929. On the whole, the Hahnemann Hospital is highly satisfactory

By JOHN M. SMITH

Director, Hahnemann Hospital, Philadelphia

THE description of this new hospital in the building number of THE MODERN HOSPITAL, March, 1929, was printed with the understanding that after the plant had been in operation sufficiently long to determine its practicability another article would be prepared discussing the features that might have been better planned. This is an attempt to meet that obligation. Perhaps it will be pardonable if some good features are also discussed because there are two kinds of worth while things to learn with regard to any hospital—things to do and things not to do.

The building is the shape of a capital F with the two arms of equal length extending to the south 40 feet apart. We were successful in our attempt to design the exterior so that it is uncomfortable for starlings and pigeons. Of the twenty floors, eighteen are served by six hand-control elevators and three push-button automatic dumb-waiters. Everything connected with the hospital proper is housed in this building except the laboratories and about half of the operating rooms, which are in an adjoining building on the same floor level as the new operating rooms.

The building has a normal capacity of 700 beds,



370 of which are in public wards and 330 in private rooms, semiprivate rooms and private wards, both including bassinets for newborn babies. It also houses the first aid and out-patient departments.

Ever since this new plant was opened in the fall of 1928, there have been extra beds in all wards; even the sun parlors in most cases have had beds in them in constant use because as the times have become more difficult the demand for ward beds has become greater.

Some general features may be of interest. Artificial ventilation was installed in the nurseries,

operating rooms, the few inside bathrooms and throughout the ground floor, which is below the street grade. Air is removed by exhaust fans on the twentieth floor and fresh air is put in through filters (not washers) by fans on the ground floor of one of the old buildings. This exhaust ventilation has proved satisfactory for the places in which it was installed, but experience has shown that several other places were badly in need of it. Clinics and offices on the first or street floor and several wards have had to have considerable such ventilation installed. The question of fresh air is one that should have careful thought when planning a new building, particularly if it is a large one.

Difficulty in Ventilating Disposal Chutes

Eighteen floors of the building are provided with openings into two chutes, one of which is for the removal of the soiled linen and the other for rubbish. This has proved to be an excellent way of disposing of these two troublesome details, but owing to the height of the building there has been difficulty in ventilating the chutes, particularly the rubbish chute, which naturally has dust in it. These chutes discharge into adjoining rooms on the ground floor. Recently we have installed a large exhaust fan on the twentieth floor, which draws all of its supply of air up through the clothes chute. A hole has been made in the partition wall between the two rooms on the ground floor so that the air entering the clothes chute must come from the rubbish chute, which necessarily makes a down draft in it. This has corrected the trouble.

Acoustical material was placed on the ceilings of parts of the first floor, in the elevator lobbies on all floors, in the nurseries and birth rooms. It has proved a great advantage because it absorbs many of the high sounds, which are the ones that annoy patients. It is suggested that such treatment be used much more generally in new construction, particularly on the ceilings of private rooms and wards and the corridors serving those quarters. It costs little more than plastered ceilings and adds tremendously to the satisfaction of the patients. We wish we had used much more.

Elevators were placed far enough away from the outside wall of the building to permit the doors to be opened facing the wall instead of the corridors. When the plans were being drawn there was vigorous objection to this because it was perhaps an unusual arrangement. The noise made by elevator doors is disturbing to patients. This arrangement of having the backs of the elevators to the corridors, together with acoustical treatment on the ceilings has entirely prevented this source of disturbance to patients.

The self-leveling devices and the speed of 600 feet a minute have proved practicable on passenger and bed cars alike. Three of our elevators are for passengers and serve private floors only. The other three are service cars stopping at all floors and are large enough for hospital beds. It would have been better if four of them had been for service and two for private floors.

From two to four ice water drinking fountains have been placed on every floor in the corridors high enough above the floor to enable wheel stretchers to pass under them. They are continuously supplied with softened and refiltered ice water by an automatic water cooling plant. This equipment has proved practical and a source of great satisfaction to ambulatory patients, visitors, physicians, nurses, personnel and medical students. Bed patients prefer pitchers of water containing cracked ice.

All the hot service water for the hospital is softened before being heated so that the annoyance of leaking hot water faucets has been almost entirely eliminated, the quantity of soap has been reduced and the water is much more satisfactory to use. All hot and cold water going to laundry and boiler rooms is softened, which has resulted in a great economy of linen, soaps and fuel. Three zeolite softeners having a capacity of 40,000 gallons each between regenerations take care of these requirements.

All exposed metal including plumbing fixtures, door hardware, switch plates and the like is chromium plated. While this has proved completely satisfactory on plumbing fixtures, it has occasionally come off a door knob and has not been altogether satisfactory on the switch plates. However, it has more advantages than disadvantages and is the best hardware finish we have seen; no doubt it has been considerably improved during the last five years.

Dumb-Waiter Signal Bell Disturbed Patients

Dumb-waiters were so placed that they could take supplies from the kitchens and the pharmacy, and the controls were placed in the kitchen. This arrangement was not found entirely practical; experience shows that it is better not to use the same waiter for both departments. The control of one of the waiters was placed on the first floor convenient to the pharmacy, and this seems to be a good working arrangement.

As originally installed, the nurses on a given floor were notified by the ringing of an electric bell that the dumb-waiter was there and should be unloaded. This was disturbing to patients and did not always attract the nurse. In place of the bell we installed in front of each nursing station an



Window sills are 42 inches from the floor in all rooms, including this lounge and meeting room. Much criticized at first, this feature is appreciated by patients. They can see out easily, and yet they need not fear an accidental fall.

electric light, which blinks while the dumb-waiter is at the floor. The blinking can be stopped only by the nurse going to the dumb-waiter. It seems to have almost entirely corrected the delay in having articles removed from the waiter and is, of course, silent.

The plant is heated by a low pressure vacuum steam system. In the bathrooms small sheet metal enclosed heat units have been used. These are easy to keep clean and remove entirely the possibility of a patient thoughtlessly burning his legs. The remainder of the house is equipped with standard radiators, which are hung on steel brackets built into the walls. The entire heating system is excellent but would look better if the radiators had been placed back of grilles. The expense of doing this, however, would have been considerably more.

Window sills throughout are 42 inches above the floor. During erection this feature received considerable adverse criticism from hospital administrators and architects, but after five years of experience we are more than pleased with them. Patients have frequently remarked that regardless of the height of their room they feel absolutely safe because it is impossible to fall out accidentally. Patients in wheel chairs or those sitting up in bed can see out readily as though the sills were lower.

All window screens are made of bronze and are hung on the outside of the windows in such a manner that the lower sections can be pushed up in the

fall, thus eliminating the necessity for removing them. The cleaning of the screens proved to be somewhat of a problem because rain and dust combined would gradually close the meshes. After considerable experimentation we struck upon the idea of using a hand electric vacuum cleaner having a sack to catch the dirt, or a floor vacuum cleaner with a hose long enough to make it possible for the tool to reach all parts of the screens from the inside of the building. We clean the screens once or twice a year and have eliminated the trouble in a most practical way.

On the lower floors, which are used for offices, and in out-patient departments and operating rooms there are inside projected sashes with obscure glass for privacy; they are well adapted and are not expensive. All windows in the patients' quarters have double hung sashes with one-eighth-inch polished plate in the lower sash and hammered glass in the upper sash. The double hung windows have narrow sills about $3\frac{1}{2}$ inches deep so that it is possible to raise the bottom sash three inches without creating a direct draft but at the same time admitting air at the meeting rail. This arrangement has been excellent for ventilating rooms occupied by very sick patients. Sashes 24 inches wide have been used because wider ones are difficult for women to open and close. Window openings have two or three sashes each.

In the children's department and in the sola-

riums ultraviolet ray transmitting glass is used; apparently this has considerable virtue although some people smiled at us for having installed it.

The plastered walls throughout the building have been painted with lacquer, sprayed on. Because of the objectionable odor of these paints and the fact that the spraying releases the odor, which spreads rapidly, great difficulty was found in painting vacant space on occupied floors without causing serious annoyance. This trouble has been almost completely eliminated by placing in the windows of the room being painted two high-speed exhaust fans which run all the time the painters are working. The door is left slightly ajar to provide air for the fans.

Color Scheme Is Popular

The color to be used on hospital walls is usually a troublesome matter and a great deal of thought should be given to it because there are several shades that, though pleasing to well persons, are disturbing to the sick. Every wall and ceiling in this building is buff and the doors and trim are of the same color family but several shades darker.

When the building was first opened people who were being shown through were harsh in their criticism of the colors, but we have had so many compliments regarding the color scheme by all classes of patients, including the very well-to-do, that we are convinced that we did not make a mistake. We have been fortunate in selecting two of the few colors to which no patients object.

Out-patient department, solariums, kitchens and elevator shafts are finished in salt glazed tile of buff color. This tile has proved so satisfactory that we are sorry we did not use it in the communicating stairway and perhaps in the corridors of the ward floors. It is attractive to the eye, easier to keep clean than painted walls, costs just about as much as plaster and paint and, being hollow, resists the passage of sound.

Refrigeration throughout the plant, including all floors, laboratories and kitchens, consists of independent electric units. They cost less to install, are more economical to operate, do not present the objection of brine pipes through the building, and breakdowns are not nearly so serious. So far no objection to them has developed. The question usually raised is, will they last as many years as a central plant with brine lines running to the various refrigerators? Apparently they will last a long time. Ice is made with our old twenty-ton brine plant, which is adequate and satisfactory.

Floors always present a problem and many times there does not seem to be a satisfactory answer. Our private rooms and their corridors and the private patient administration department

have rubber flooring. Wards and dispensaries have mastic asphalt flooring. The third floor service elevator lobby has asphalt tile. Baths, toilets, birth rooms and operating rooms have terrazzo. The ground floor is of concrete, with the exception of the kitchens. The general kitchen has quarry tile with cork inlaid between the range and the cook's table. The private patient kitchen and the diet kitchen have cork throughout.

Every one of these floors has been found to be admirably suited to the use for which it was installed, except the mastic asphalt. This wears through to the concrete rapidly and is generally unattractive. As it wears out, we substitute asphalt tile in its place. Since both these types of flooring are usually produced by the same manufacturers the arrangements for replacing are easy to make. The asphalt tile floor can be laid in a small or large area, with little inconvenience to anyone, while a mastic floor patch must be protected for several days so that it can cure before being used.

Fire tower walls are of cinder brick and stairs are of concrete. Both are entirely satisfactory for this purpose. Since these stairs are rarely used, the homely appearance does not matter and the cost of construction is low. The communicating stairs, of which there is one set, are steel with pre-cast terrazzo treads and landings. Terrazzo is easy to clean and becomes increasingly so as it gets older. It has a minimum of cracks and is excellent for operating rooms, baths, clinics, entrances and other space where floors of a hard material are indicated.

Two Changes Made in Radio Equipment

Every patient bed in the hospital, except those in the children's department, was provided with radio reception from two stations. The reception is entirely by head sets. There has been considerable trouble with cross talk between the two stations. This was corrected by the installation of lead covered wire in the place of the original, which was insulated only with rubber. Bed outlets permitted the use of any standard plug, with the result that patients would frequently use their own head sets, which were of a different resistance from ours thereby throwing both circuits out of balance. We found it necessary to install new jacks of a type that would permit only special plugs to be used and, of course, all hospital head sets were reequipped with those plugs.

Since making the two changes mentioned nearly all of the trouble connected with the radio has been eliminated. It is the greatest device we have yet learned of for the amusement of patients, enabling them to pass their time without becoming bored.

Loudspeakers are an abomination in a hospital and are not permitted.

On the patient floors the corridors are 6 feet wide. It would have been better had they been 7 feet.

A tour of the building, starting in the basement, will now be made in order that I may point out both unsatisfactory and good features.

On the ground floor are the three kitchens, the help's dining room, the help's locker rooms and the linen room. Some difficulty was experienced through kitchen odors working their way out to the elevator shafts and circulating through the building. This was corrected by balancing the artificial ventilation so that the air draws into the kitchen doors to the ranges and from there passes up through the hoods. The private patient kitchen, which adjoins the general kitchen, was found to be very warm at the ranges. Substitution of a diamond mesh galvanized partition between the two kitchens almost entirely corrected the trouble.

Kitchen Arrangement Is Satisfactory

Our experience is that frequently too many walls or tight walls are used where there should be none or else merely open work. Also it is a common fault to hang doors where openings are all that are required. In many cases in which shelving or cabinets have to be against walls it is possible to have the tight wall extend only to the tops of the cabinets and to build the remainder of diamond mesh wire or other open material. All these suggestions help a great deal with ventilation and the elimination of stuffy rooms and corridors. The diet kitchen was a little smaller than it should have been. Most of this difficulty has been corrected by the removal of two unnecessary closets. The floor of this kitchen as well as that of the private patient kitchen has cork tile because the crews are women and apparently they cannot work continuously on hard floors without developing serious foot and leg trouble. These floors wear away to some extent because they have to be scrubbed every day, but the cost of replacing a few worn-out tiles twice a year is insignificant compared to loss of time as a result of painful feet. The kitchens generally are satisfactory to work in and are economical to operate. Refrigerated glass-lined tanks for storing bulk milk have proved practical. Refrigerators for the morgue, necropsy room, laundry, central incinerator, shops, stores and garbage are in the basements of old buildings; these are connected by tunnels to the new one and will not receive special discussion. The refrigerator for storing bodies is an independent automatic unit and is most satisfactory.

One piece of equipment usually omitted from the

laundry is important. It is a blanket washer. Most hospital laundries rapidly destroy their blankets by improper washing. Blanket washing machines made of wood operate at a slow speed and have water temperature controls so that it is possible to carry blankets through the entire washing process without a change of temperature, thus preventing shrinkage and harshness. If such a machine is installed it actually can be paid for out of the savings in blanket purchases in a year or two, and it will greatly increase the satisfaction of the blankets to the patients and personnel because they will be softer, warmer and more agreeable to look at.

On the street floor the office arrangement is unique because all the office procedures for the entire hospital are conducted in one large room. This has proved convenient and economical, and we should do it again.

The first aid department, which is important in a centrally located hospital, is most practicable. It would have been more convenient, however, had the two treatment rooms been beside each other instead of having one behind the other with a side corridor.

The out-patient department is satisfactory except that a somewhat larger space for patients to line up for the cashier is needed. There has been growth equivalent to ten normal years in our dispensary attendance in two and a half years. The professional staff room was too small, but this was easily corrected by removing a partition between it and an adjoining unassigned room. The chief resident physician's office had the same fault, which was corrected in the same way. Space originally provided for the office of the nursing department was improperly located and inadequate. This was corrected by moving the dental clinic to the second floor into unassigned space and remodeling that department for the nursing office.

The availability of unassigned space has proved a great advantage because hind sight is better than foresight.

The Dressing Room for Ward Patients

Out-patient case records are distributed daily from the central office by a pneumatic tube system, an excellent device. It would have been a great help had this system extended to all patient floors and the pharmacy, because mail, small packages and many drug items could thus have been quickly distributed.

The ward patient clothes room is the place where all ambulatory patients for admission report immediately after leaving the admission office. Their clothes and valuables are listed and checked and they take their admitting baths here. They are

then sent to the wards in wheel chairs in hospital clothes. When ward patients are ready for discharge they are brought by nurses down to the clothes room where they dress and then go to the office for final settlement of their accounts. This room is a great improvement over the old method of admitting patients directly to the wards, where they are undressed. It is important that this room shall contain enough patient dressing rooms to handle expeditiously the volume of business that the hospital does.

More Space Needed for Physical Therapy

The second floor consists entirely of out-patient clinics and the physical therapy department. Space for the last named proved to be too small. The relocating of the orthopedic clinic, which meets in the afternoons, with the surgical clinic, which meets in the mornings, and the moving of the rectal clinic to unassigned space on the same floor, made it possible to double the space for physical therapy. Since the rearrangement every department concerned is provided for more satisfactorily and economically. It has become advisable to install air pressure and suction in the gynecologic clinic. This was easily done because the pipes from the central plant were not far away.

Throughout the clinics generally, metal partitions and sliding muslin curtains, which do not extend to the floor or reach the ceiling, have been used with great utility. Such partitions to provide examining and treatment rooms have advantages over built-in walls. They improve the ventilation and lighting and are a great satisfaction when it is necessary to rearrange space to suit changing conditions.

The third floor is devoted to operating rooms, birth rooms, radium and x-ray apparatus. There is little to criticize adversely. Provision of a continuous supply of nitrous oxide and oxygen through wall valves in all operating rooms and birth rooms has proved practical and economical.

On the fourth floor are the ward obstetric beds and the nursery. Birth rooms are on the third floor. The wards are all of four-bed or eight-bed capacity and have metal cubicle partitions with muslin curtains to provide privacy for each bed. This arrangement is satisfactory.

The construction of both fifth and sixth floors is exactly the same—one is for surgical cases and the other for medical. They have proved economical from the standpoint of nursing and satisfactory to the patients. There is little to criticize except that we have had to add exhaust ventilation for two or three of the smaller wards at one corner, which are used for urologic cases and others producing odors.

Half of the seventh floor is devoted to gynecologic ward patients and the other half to children's medical and surgical cases. There is a double hung door in the corridor between the two departments. Except for the infants' ward no cubicles are used in the children's department. As on the other floors there was some difficulty with ventilation, and an exhaust fan, which draws the air from the corner wards and the infants' ward, had to be installed. On the south end of the children's wing two playrooms were provided with a glass partition and door between them. From one of these the entire south wall has been removed and in its place is a diamond mesh wire and brass mosquito screening so that it can never be closed even in stormy weather.

Both playrooms have been completely equipped with the new type of ultraviolet lamps, under which the children can play for hours without receiving too much "sunshine." This installation has proved beneficial and not expensive to operate because it requires no attention except turning the current on and off. The only precaution necessary is that eye protection be provided if patients lie on their backs under these lights. There are fourteen lamps in all.

The only floor on which arrangements have been made to have both ward patients and private patients is the eighth. Half of it consists of a public ward and the other half of semiprivate rooms. Generally speaking, it is not desirable to place ward and private patients on the same floor.

Semiprivate Rooms Should Have Been Wider

The ninth floor consists entirely of semiprivate and private ward rooms, the semiprivate rooms having two beds and the others more than two—usually five. All rooms have muslin curtains between the beds and the two-bed rooms have telephones and running water. The semiprivate rooms should have been a little wider. This was partly realized when the plans were made but the necessity for having a large number of patients on a floor in order to make it possible to establish low charges had considerable influence. It would have been better to have had them slightly larger even at the loss of a few beds.

The tenth floor is occupied entirely by private obstetric patients—half of the floor has two-bed rooms and the other half single rooms. All babies are placed in one nursery. The semiprivate rooms are like those on the ninth floor and the private rooms are like those on the floors above. There is nothing to criticize except that the sound insulation between the nursery and the corridor is inadequate.

Single private rooms occupy the space on the

six upper floors beginning with the eleventh. So satisfactory are they in almost every respect that it is difficult to refrain from entering into a detailed description of them. They could be improved by the installation of acoustical material on the ceilings, although there is almost no complaint regarding noise.

Rubbish and soiled linen chutes are in the corridor near the nurses' station. Perhaps it would have been better to have had them in a room with a double hung door that would normally stand closed.

Above the seventeenth floor is a loft, or half floor, which provides for the distribution of hot and cold pipes of all descriptions. Unfortunately it is so warm that it heats the ceiling of the seventeenth floor and makes those rooms objectionable in the summer. In the winter they are delightfully comfortable because there is a slight radiation of heat over the entire ceiling. This loft has a ceiling height of only 4 feet, which means that it is extremely difficult to make certain kinds of repairs. It would be much better if it had 6 feet of head room.

The eighteenth floor originally provided a meeting room, which is also a lounging room for patients, open roofs, a solarium, in the corner of which is the radio receiving room and a sunning and airing room for mattresses and pillows. No changes have been made in the floor except that the mattress room has been relocated on the eighth floor in order to provide for occupational therapy. The occupational therapy space has two walls and part of the ceiling is made of ultraviolet ray transmitting glass. The addition of roll shades under the skylight and inside all the vertical glass makes the arrangement ideal.

The nineteenth floor accommodates the large central telephone exchange, the ice water cooling system, the hot and cold water sterilizers and record and furniture storage. The ice water cooling system originally had certain defects, which caused the water pipes to burst. The trouble was due to the fact that the brine was in the tank and the

water passed through the pipes. When these were reversed, the trouble was corrected.

The continuous automatic hot and cold water sterilizers furnishing sterile water for the entire hospital were adversely criticized by visitors at first, but they are one of the most practical pieces of equipment in the entire plant. All operating rooms, clinics and patient floors are provided with a continuous supply of hot and cold sterile water day and night through tinned brass pipes. Bacteriologic cultures have been made of the water drawn from different places every week since the building was opened and only once has it been unsterile. The trouble was traced to the habit which certain cleaners had acquired of drawing sterile water instead of ordinary water, thus overloading the sterilizers. This was corrected immediately, and a high pressure steam connection was made to the sterilizing system at a point where it was possible to blow steam through the entire system after draining it.

On the twentieth floor are the elevator machinery, the exhaust ventilation equipment, city water and soft water service, including fire pressure arrangements, and an electrical shop for repairing radio head sets and a great quantity of small electrical equipment. The light and air are ideal. The only alteration to it was made necessary in order to install the exhaust fan drawing air up through the soiled linen chute and down through the rubbish chute.

Considerable time has been spent in describing some of the features of the hospital. Many good features had to be left out, but I have tried to discuss all the objections or failures.

Considering the plant as a whole, it has proved highly satisfactory to patients, physicians, nurses and the administration. It is economical to operate and the per capita costs are apparently as low as those attained in almost any other large hospital. Low per capita costs, however, must not be looked upon favorably unless the service to patients is in keeping with the wishes of the professional staff and the requirements of medicine.

Bauer Book Tells Parents About Contagious Diseases*

In simple and clear terms, Doctor Bauer presents information that mothers should have to protect their children. From his fund of experience as health officer and more recently as director of the Bureau of Health and Public Instruction of the American Medical Association he draws much practical material. He properly emphasizes the importance of prompt attention from the doctor and the need of hospitalizing patients with contagious diseases.

"In spite of the fact that hospital treatment for the communicable diseases is known to be best for both patient and community," Doctor Bauer says, "there are and will continue to be large numbers of patients treated for these conditions in their homes, either from preference or of necessity."

While the book is not intended for the enlightenment of professional health workers, it will be useful to them as an aid in instructing the public.—A. B. M.

*Contagious Diseases, by W. W. Bauer, M.D., director, bureau of health and public instruction, American Medical Association, Alfred A. Knopf, New York City, 1934, \$2.

Twin Problems in Construction— Insulation and Acoustics

By JAMES GOVAN, Architect, Toronto; G. R. ANDERSON,
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I INSULATION

NOTWITHSTANDING the rapidly growing realization of the benefits to be derived from the use of insulation in building construction, a study of the descriptions of a great many of our comparatively recent hospital developments indicates that the importance of the subject is either only partially realized or is blandly ignored.

Three important facts must be studied together, if a proper understanding of the function of insulation is to be had. The first point is that in latitudes in which there are wide fluctuations in outdoor temperature throughout the year, one may find that solutions that are economically satisfactory in other climates become totally unsuited. The second point is that these fluctuations in outdoor temperature not only affect standards of human comfort, but they also exert a decided influence on the scientific principles of building construction. The third factor in the situation is that while those who live in northern latitudes suffer from wide fluctuations in outdoor temperature, they also enjoy remarkably satisfactory average outdoor temperatures during winter months as well as in summer.

Rarely does one see any evidence that the significance of these satisfactory average temperature conditions in relation to building construction methods has been clearly understood or taken advantage of by hospital builders.

To those who have not given this matter thought, we suggest that a careful study be made of local records over a period of several years.

For hospital builders, the importance of these conditions will be realized when they understand that it is quite practicable to construct buildings that will maintain indoor temperatures not much lower than the winter outdoor mean or much higher than the summer outdoor mean, without the assistance of artificial heating or cooling.

The only factor that will affect these results is the amount of air admitted to such buildings in extremely cold or hot weather. We can emphatically assert that, under average conditions of human occupancy, absolutely satisfactory indoor temperatures can be maintained at all times with less than one-half the size of artificial plants usually installed in buildings not designed to take advantage of temperate average outdoor conditions.

Experience in occupied buildings in Ontario, in

which the heating plant installed is reduced by 70 per cent from what would be considered necessary for the same buildings with ordinary construction, backs up the foregoing assertion.

With regard to summer comfort, it is essential that the orientation of each building for sunlight be studied so that full advantage be taken of the warmest aspects in winter and the coolest in summer.

In such a specially insulated structure, the torrid rays of the summer sun must be prevented from entering directly through windows, because, if once

the indoor temperature is raised by such direct radiated heat from the sun, the very nature of the construction will make it more difficult to lower the temperature when the sun has set. Special attention must, therefore, be given to windows

Significant savings and increased comfort are the promises held out to hospitals by a recent Canadian study. These two reports are findings of a subcommittee of the general committee on construction and equipment of the Canadian Hospital Council. A few deletions have been made in the interests of space, but the major portion of this study is here available

which have an east, southeast, southwest or west exposure.

The results described cannot be obtained in any haphazard fashion, by using ordinary construction methods with thin linings of this or that. Unfortunately, no report of reasonable length could give enough detail fully to meet the different conditions that arise with each project.

Emphasis must be placed on the absolute necessity for the provisions of adequate resistance to heat flow in all parts of a building structure, and this must be combined with a capacity to retain heat within the structural materials. We do not agree, however, with some authorities, who claim that heat capacity cannot be obtained in light materials, and we suggest that further scientific investigation of this matter is urgently needed.

Windows About as Effective as Sieves

Adequate resistance to heat flow in the walls and roof of a building will only partly solve the hospital problem, if we continue to use windows that are about as effective as sieves in stopping heat from passing directly through the glazed parts, and that admit cold air around the junctions of the sash with the frames and around the frames where they come in contact with the walls.

Good weatherstripping and caulking will get rid of the latter objectionable features of ordinary construction, but a solution for the heat transmission loss through glass has been hard to find.

Many schemes have been tried, but in most cases the results have been unsatisfactory, because of the cumbersome nature of the construction, condensation between double and triple glazing, and dirt collecting on inaccessible surfaces. Recent developments, however, indicate that it will now be possible to reduce the amount of heat transmission by about 75 per cent with a thoroughly practical window and still keep costs at a reasonable level.

The disadvantages of metal for window frame and sash construction for a building, such as we have indicated, need scarcely be pointed out, and we seriously doubt whether the added fire safety claimed for metal in window construction is sufficient to offset its other serious disadvantages under the atmospheric conditions that should prevail in a modern hospital.

The development of fireproof wood or some synthetic composition with similar low heat conducting qualities would seem to offer a more practical solution of the fire hazard problem. Failing that, metal will have to be treated in some way to make it comply with the newer requirements of hospital administration described later.

Some idea of the fuel savings made possible by

the type of construction we have referred to may be obtained from a comparison of two typical hospitals, No. 1 in Ontario where the construction methods used followed the lines indicated above, and No. 2 in Quebec with ordinary construction. The ratio of occupants and staff in the Ontario and Quebec buildings is approximately 1 to 3, and the services and accommodation provided in the Ontario building are, if anything, more elaborate than in Quebec, in proportion to the number of patients accommodated.

The two institutions are in districts where the climatic conditions are similar, and there is nothing radically different about them except the building construction and the mechanical and heating equipment. Sterilizing and other provisions affecting comparison are just as complete in No. 1 as in No. 2. Both winter and summer comfort conditions for patients are better in No. 1 than in No. 2, and the capital cost per patient was at least 30 per cent lower in No. 1. Hospital No. 2 is not an abnormal example of such institutions. In fact, it may be said to be typical in both first and maintenance costs of the average institution of this kind built all over Canada and the northern section of the United States. The cost per 1,000 cubic

COMPARISON OF FUEL COST IN TWO CANADIAN HOSPITALS

	Ontario Hospital No. 1	Quebec Hospital No. 2
Cubic space heated.....	160,000	461,000
Coal consumption per year, tons	60 (heating) 14 (dom. wtr.)	800
Electric light and power cost per year.....	\$785.65	\$3,516.00
Gas cost per year for cooking	None	\$900.00

feet for heat, light and power compares closely with several other typical institutions studied.

That the benefits to be derived in a hospital so constructed would not be limited simply to reductions in fuel cost, as has been so often taken for granted, is well set forth in the following views expressed by Dr. C. A. Mills, department of internal medicine, Cincinnati General Hospital. Doctor Mills writes as follows:

"Since new developments in hospital construction engineering render it feasible to provide proper air conditioning at low cost, it is necessary that the medical profession indicate the need for this service and the use to which it may be put.

"Deserving of first mention is its use for both premature and full term infants of delicate constitution. Even infants of normal health should have a well regulated environment.

"Next come the children suffering from summer diarrhea. Here relief from the heat, which

seems to be a major factor in causing the disturbance, is of the utmost therapeutic importance.

"It would be of like importance to relieve heat stroke and heart failure cases from the depressive effects of hot summer weather. For these individuals, the direct application of cold to the body, as with cold packs, is not nearly so much to be desired as that they have cold air to breathe. They should be provided with a room in which frequent and fairly wide fluctuations of temperature could be secured at will.

Specific Needs for Air Conditioning

"Surgeons avoid as many serious operations during the summer heat waves as they can, because experience has shown that postoperative risks are unduly high. The writer believes every surgical ward should be equipped to avoid temperature extremes and to provide a 10-12° F. day and night variation. The temperature variability should be kept low for the first two or three days after operation, but should then be rapidly increased to provide maximum stimulation and shorten convalescence. This would hold as well for medical, obstetric and other types of patients as for those in the surgical wards.

"Air conditioning also should include the furnishing of certain rooms in each hospital with a high, even temperature and high humidity for the treatment of those conditions of overstimulation, such as exophthalmic goiter or hyperthyroidism, severe cases of diabetes and pernicious anemia, essential hypertension, and many hyperirritable or excitable nervous states. A week or two at a temperature of 85° F. and a relative humidity of 70 per cent produces quite a noticeable reduction in the rate of body metabolism.

"In general, we have found experimentally that the body is best stimulated by fairly wide daily fluctuations of the temperature, and is most depressed by a constantly high temperature and high humidity. Since most of the patients' time in the hospital is spent recuperating, we should be able to provide the optimal environment for hastening this recovery. Either stimulation or depression should be applied as necessary."

In hospital buildings of ordinary construction, the provision of air conditioning methods as outlined by Doctor Mills is almost out of the question at anything like a reasonable cost, but when construction methods can be used that will allow a cut of 70 per cent in the size of the heating plant, the resultant economy increases the possibility of giving the medical administrators of hospitals almost any variation in air conditions they want.

Furthermore, it will avail us little, if we change the air temperature in a room up or down, unless

we can control the temperature of the inside surface of the exposed walls, ceilings and glass. Under ordinary construction methods, these temperatures fluctuate within a wide range and thus the amount of heat radiated from the human body is seriously affected.

In buildings of the desired type, the temperature of these exposed surfaces is brought much nearer to the level of the air in the room, and therefore the temperature of the air breathed can be varied over a wider range and comfortable conditions still be maintained.

This feature and the ease of maintaining even higher air temperatures inside with a much reduced amount of heating apparatus make it possible to resort to individual room control of air conditioning at a cost much lower than has hitherto been found necessary.

With so many insulating materials now on the market, which are not only highly fire resistant in themselves but also, in some cases, add to the fire resistance of other more inflammable structural materials, there seems to be absolutely no reason for hospital authorities to add to their fire hazard by choosing materials that are either quickly destroyed by fire or aggravate the danger from smoke and gas.

The greatest care must be taken in the use of insulation to see that the known laws of physics are observed. Cold storage practice has demonstrated, for example, that air spaces in wall and roof construction are certain to cause trouble through condensation and freezing. The same rules apply to other buildings in which the general methods of preventing heat transmission are followed.

Other Uses for Insulation

This report would be incomplete if attention were not drawn to the inexcusable loss of heat so often observed in connection with the installation of boilers, tanks and pipes. While it is true that in many cases such equipment is so placed that the heat is allowed to pass into portions of the building that may sometimes require heating to maintain comfortable conditions, it is nevertheless true that in far too many cases the heat generated is wasted and only adds to the discomfort of occupants in adjacent parts of the building.

The efficiency of the covering used is, generally speaking, not nearly sufficient, and we can state definitely that its potency can be materially increased in most instances without adding to the building cost.

In case this report might be interpreted as advocating methods of construction much more costly than the ordinary hospital can afford, proof can

be produced that the methods of building recommended have been followed in hospitals that rank as the lowest in cost per bed for the facilities provided for the care of patients and staff.

Not only is there no excuse for increasing the capital cost, but when the lowered maintenance costs per annum are taken into consideration, it can be shown that to follow ordinary methods of construction in the building of hospitals is a sheer waste of public and private funds that would not be tolerated if all the facts were clearly understood.

II ACOUSTICS

SO FAR as hospitals are concerned, the principal task in acoustics is to prevent the creation of distressing noises that would scarcely be tolerated in buildings occupied by individuals in good health, and to reduce to a minimum necessary existing sounds.

The problem is a relatively simple one in this case. In lecture rooms for nurses and other staff members, in clinic demonstration rooms, in corridors, maternity rooms and in children's wards, the installation of acoustical material is desirable for the purpose of lessening unavoidable noise disturbances.

To this end, hospital committees should exercise great care in the selection of the site for the building. How often one sees a hospital erected in the noisiest section of the city where traffic is heaviest. Cases exist in which the hospital is near a railroad at a point where the ringing of the engine's bell and the loud blast of the whistle at all hours of the day or night are necessary. One would hazard the assertion that half the acoustic troubles in a hospital could be eliminated by the wise selection of the site.

The idea of mystery about the subject of acoustics has a tendency to keep up the cost of treating hospitals to reduce the noise nuisance, and the sooner this idea can be dispelled, the greater will be the demand for satisfactory sound-absorbing materials. Thus the largest item in present costs—sales promotion—will come down to reasonable levels. As things are now, we are going around in a vicious circle—small demand causing high prices and high prices limiting the demand, which many manufacturers try to stimulate through the efforts of high pressure salesmen.

We need not wonder that many hospital administrators fight shy of recommending to their boards expenditures for acoustic treatment, when we check up the poor results that have been obtained in far too many cases, as compared with the extravagant claims made prior to installation by the manufacturers of the materials used. When

jobs are checked up by scientific tests and it is found that materials for which about 50 per cent absorption is claimed are giving about 15 per cent, and in other cases claimed results of about 40 per cent dwindle to between 20 and 27 per cent in actual execution, a distrust in published data is created from which all manufacturers are suffering. This feeling is further aggravated when certain salesmen leave samples in architects' and engineers' offices that would meet hospital requirements, but which are totally different from the materials actually installed on jobs, the latter being far from satisfactory so far as hospital requirements are concerned.

Recent experiences of this kind compel us to urge all hospital authorities to be candidly skeptical in comparing the claims made for different materials, even when such claims are based on reports of tests conducted at well known laboratories. We do not suggest that the authors of such reports are deliberately misleading their clients, but we do assert that the results obtained on many jobs do not support the laboratory-test results published.

Another reason for caution in the selection of materials is that so many manufacturing firms have entered this field that new materials with obvious advantages are becoming increasingly available; therefore the widest possible range should be studied before decisions are made. The cost of expert guidance in selection will, in most cases, be more than offset by the difference in cost of the final installation and the results obtained.

Two Theories of Noise Abatement

Up to the present the high cost of absorbing materials and the high absorption claims made for some materials have resulted in the common acceptance of the idea that, if the ceilings of corridors and a few rooms, such as rotundas, waiting, dining, lecture and similar rooms, are treated with absorption material, the results will be as good as can be expected within the limits of the appropriation available.

Contrasted with this theory of hospital noise abatement, the results obtained in a few hospitals using an alternative method are well worth studying.

Examination of a number of hospitals using the first method indicates that the average total area treated is in extent about 14 per cent of the total floor area of the hospital whereas in a recently constructed example in Canada of the second method, the total area treated is practically equal to 100 per cent of the floor area of the building.

Under the first method, the general practice is

to limit the cost of the treatment to from $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent of the cost of the building, but the interesting point about the example of the second system just mentioned is that the cost was a little under 2 per cent of the building cost.

In one instance of this second group, the total amount of absorption provided was a little over 13,000 units, and the cost installed was about \$5,000. To get an equal amount of absorption in still more efficient materials, the area treated would have been reduced to about the provisions indicated for the first method referred to and the cost would have been twice as much.

The Bacteria Fetish

The total results in quietening the hospital generally would not have been as good because there is no more justification for allowing noises to be created all over a hospital and letting them pass into the main corridors off patients' rooms, there to be absorbed at the ceiling, than there would be for discharging annoying effluents from plumbing fixtures into an open pipe in the same corridors before disposing of them into a sewer pipe. Noise is just as baneful in its effects as odors or bacteria and should be stopped at its source wherever possible.

In the effort to provide hard, shiny, glasslike surfaces all over the interior of hospitals, more harm than good has resulted. The type of building so developed within the last two generations is entirely lacking in restfulness and comfort. It does not follow that because a surface is rough in texture, that it must of necessity provide a good medium for the development of bacteria.

Exhaustive bacteriologic tests have definitely proved that some rough acoustic materials are no more objectionable on this score than the glossiest enamel finish. Experience has proved also that such surfaces are quite easily cleaned and thus the bogey of bacteria and dirt being killed, what excuse remains for having hospitals echo and re-echo with every sound?

With the number of satisfactory noninflammable and nonsmouldering materials now available, there is no justification on price, efficiency, or any other grounds for the selection of materials that would add to the fire risk or create discomfort and confusion in the event of fire developing in the building.

While considerable progress has been made in the development of materials to absorb noise, the same cannot be said about developments to prevent the making of noise. The use of metal furniture and utensils, metal doors, noisy elevator and dumb-waiter equipment, plumbing fixtures, pipes, pumps, sterilizing racks, metal trays and hun-

dreds of other things that clack, bang, hum and squeak has created a situation in most hospitals that calls for drastic remedies. When we say drastic remedies, we do not necessarily mean expensive, but what seems to be needed is the reading of the riot act to architects, engineers, manufacturers and others who can do a great deal to prevent these disturbances without adding anything to the cost of hospital buildings.

Metal-to-metal contacts, pumps out of line, non-enclosed machinery, water-hammer and other pressure noises in piping, and scores of other distracting causes of disturbance are all unnecessary and could be removed by serious application to the problem.

The stopping of sound transmission from labor rooms, nursery and other noisy departments presents difficult problems. In general, construction methods using heavy materials that provide ample rigidity in floors and walls will give best results, but frequently local conditions make it impossible to adopt them.

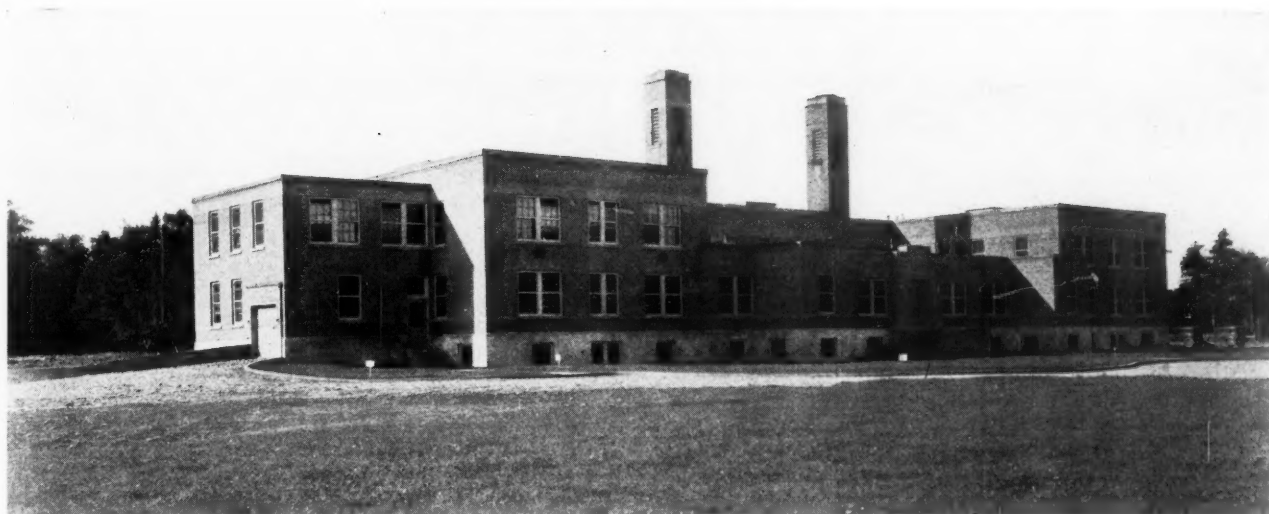
In such cases light materials can be used, but the principles governing sound transmission must be thoroughly understood if satisfaction is to be obtained. In this matter also the data frequently presented by manufacturers are misleading, as evidenced by the number of poor installations that can be cited. Even when the walls and floors are properly built, unsuitable doors, windows and other openings will entirely negate the benefits that might have been obtained.

Noise in Many Hospitals a Disgrace

Experience at several hospitals has proved that departments of this kind can be treated scientifically and inexpensively so that they do not cause any annoyance to occupants of adjacent rooms; but each case has to be studied individually and therefore it is impossible to give construction details and specifications in a general report of this scope.

Hospital administrators are to be congratulated on getting rid of dirt, impure food, water, cross infections from bad technique and many other menaces to the well-being of their patients and staff. Why not go a stage further in a campaign to eliminate the equally harmful effects of noise disturbance?

A frank recognition of the fact that far too many of our hospitals are a disgrace in this respect would help materially in making everybody that contributes to the erection and equipping of a hospital realize that they have a distinct duty to perform to see that everything they design, make, supply or install shall be as quiet in function as it is possible to make it.



Stretching the Community Dollar

By CHARLES F. NEERGAARD

Hospital Consultant, New York City

MANY a community in these days of depression is finding the support of its hospital an almost ruinous burden, and there is a general question as to whether more money than necessary has not been spent for buildings and equipment. In a remote corner of this continent, far from the centers of hospital thought and hospital planning, is a new building that seems to offer some novel and interesting ideas leading to reduced construction and maintenance costs. This is the Prince Edward Island Hospital at Charlottetown, designed by Govan and Ferguson, Toronto architects, and opened to the public last July.

Island Building Costs High

Architects and consultant were faced with a difficult economic problem. An entirely new plant, with 120 beds, was needed to serve the population of the island. Because of its remoteness, building costs are comparatively high. There are no large industries and no great wealth. The residents, chiefly farmers, fishermen and small shopkeepers, while always generous in the support of their charities, would have been unable even in normal times to contribute the \$500,000 or more usually required to build and equip an institution of the size and completeness needed.

On account of the distance from metropolitan medical centers it was essential that the diagnostic and therapeutic facilities be comprehensive. The rates that the citizens could pay for hospital care were low, and support from public funds was

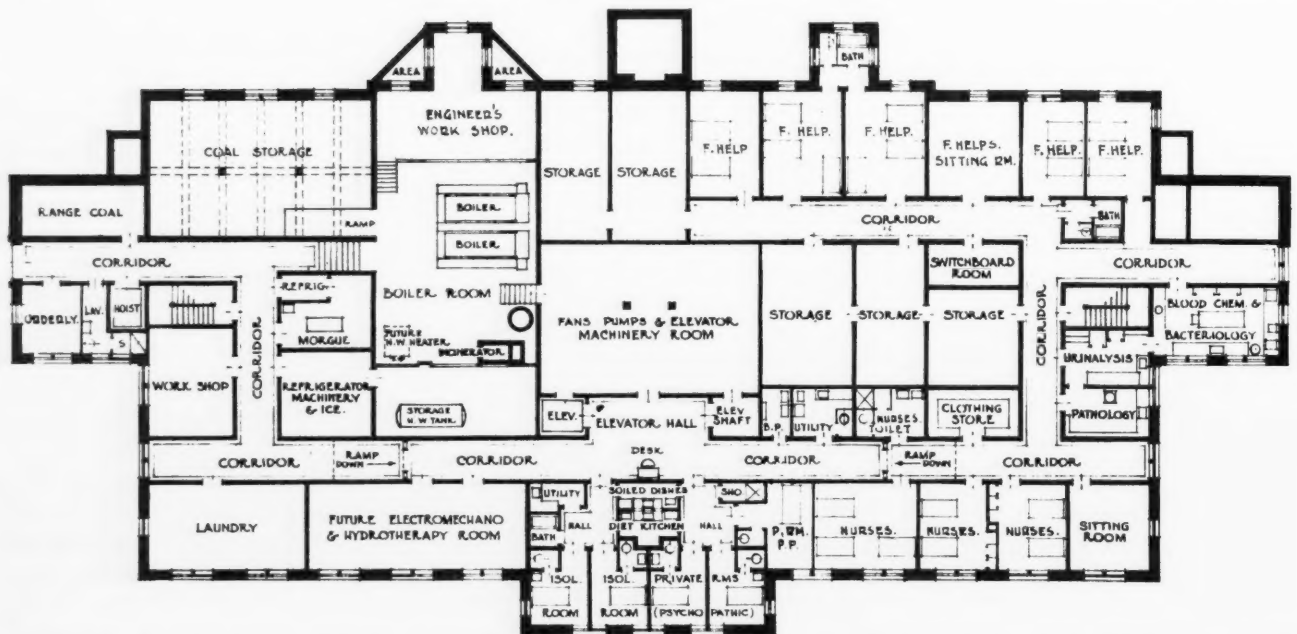
meager, making it imperative that the building operate at minimum cost. Coal transported from the mainland is excessively expensive, and with long cold winters, economy in heating was of paramount importance.

Despite all these problems, a hospital was designed that includes many special features not found in ordinary hospital construction and omits none of the essentials. Moreover, it was erected at a cost per bed far below that of the average building of comparable size and type. To no single item in the planning, construction and equipment can the low cost be attributed, but rather to an intensive and scientific study of the multitude of problems presented in the building of a hospital, to the provision of the maximum of usable area, and to the elimination of that money-consuming waste in space and equipment observable in far too many of our institutions, both new and old.

A Tour Through the Hospital

Convenience in the arrangement of the various departments in relation to one another, the endeavor to make the interior as homelike and attractive as possible, and the addition here and there of the unexpected detail, are everywhere in evidence.

The hospital is designed normally to accommodate 120 patients, including twenty-four infants. It is two stories in height, with an additional lower ground floor slightly below grade. The spacious lawns surrounding it have been planted with shrubbery and flowers since the accompanying



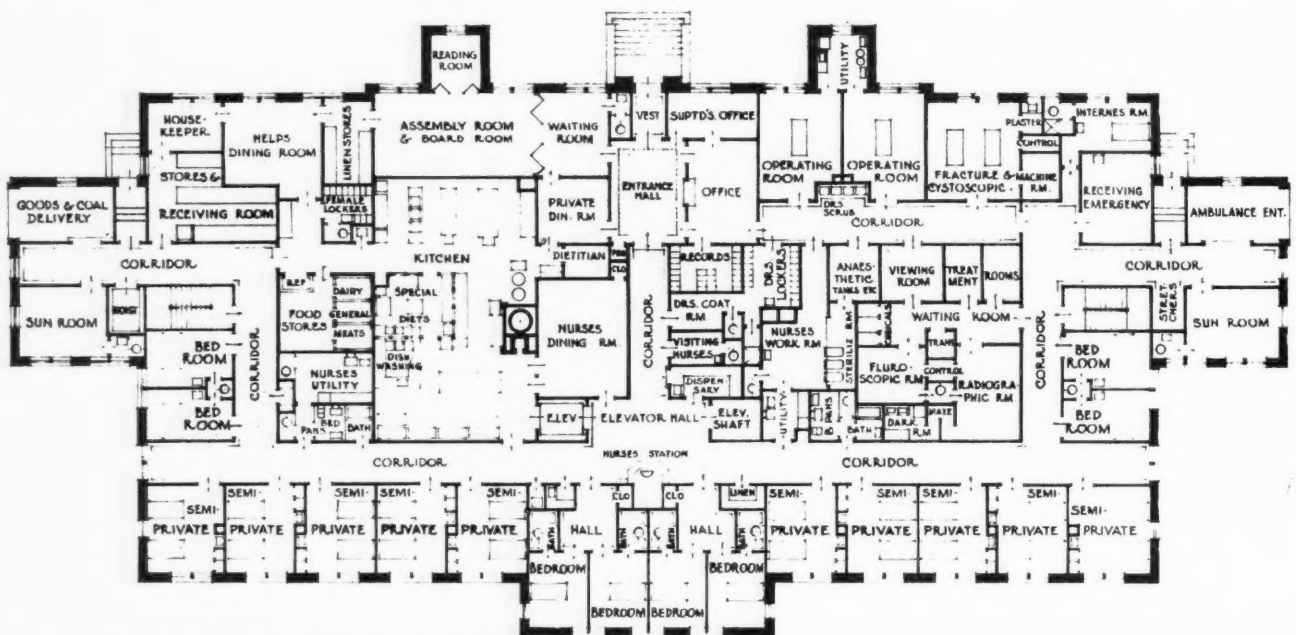
The mechanical services and certain technical units are on the ground floor. There is space for future out-patient work.

photograph was taken. The general outline of the structure is rectangular with two ventilating towers symmetrically placed near the center, in one of which is the stack. It is of buff tapestry brick, with sandstone trim and mullioned windows. On the ground floor are the mechanical services and certain technical units. The rooms on the north and south side of the laboratory are planned for future out-patient work. Isolation and psychopathic units are so designed that all or any of the eight beds may be used for either type of patient.

On the first floor, the main entrance gives access to a pleasant lobby with walnut colored wainscoting and an effective floor of terrazzo and asphalt

tile. Opening off this are the offices, reception and board rooms and library. East of the offices is the operating suite, which contains two major and one minor operating rooms, with floors and wainscot of gray-green tile. The ambulance entrance, emergency operating room and x-ray department all form a continuous group along this common corridor. The twenty-eight beds on the floor are for surgical patients. On the west side of the building are dining rooms for nurses, staff and help, and the main and special diet kitchens, planned for central food service, with all patients' trays set up and all dishes washed in the main kitchen.

The second floor is assigned to medical, mater-



On the first floor are offices, the operating suite, the x-ray department, the kitchens, the dining rooms.

nity and pediatric patients. There are fifty-four adult and six children's beds, and twenty-four bassinets, also two enclosed sun rooms facing southwest. All sun rooms are heated and completely equipped with signal systems, like the wards. The plan is extremely elastic with three and four-bed wards and a large number of convertible rooms, which may be used for either one

Thickly insulated roof construction is cheaper than thickly insulated wall construction. With these facts in mind the perimeter of the exterior masonry walls in relation to the interior accommodations was carefully studied. The results are interesting. On the second floor, a typical patients' floor, there are 10.97 lineal feet of exterior wall per bed. Floors similar in type of accommodation



Walnut colored wainscoting and an effective floor of terrazzo and asphalt tile make the main lobby a pleasant room.

or two patients. The arrangement of accommodations and utilities is such that the different services may be expanded as needed without loss of proper segregation.

The day of cold and restless white and even more uninteresting institutional gray is gone, and brighter and more stimulating colors are taking their place. Cheerful tones are emphasized throughout the building, the patients' rooms being finished in four shades—beige, gray, and two greens.

But what makes the Prince Edward Island Hospital notable is not the fact that everything found in the average well planned hospital is present. It is rather the many unusual—not to say radical—features in its design and construction. To meet the economic emergency with which they were faced the architects showed courage and resourcefulness in adopting measures which, although they had proved sound elsewhere, were entirely new to the hospital field.

It is axiomatic that the more nearly square a building can be made, to enclose the required space, the more economically it can be built.

in nine hospitals of conventional design have been analyzed and the perimeter per bed found:

Hospital A	16 lineal feet
Hospital B	15.24 lineal feet
Hospital C	15 lineal feet
Hospital D	16.3 lineal feet
Hospital E	16.8 lineal feet
Hospital F	20 lineal feet
Hospital G	18.8 lineal feet
Hospital H	18.2 lineal feet
Prince Edward Island	10.97 lineal feet

The floor approaching the Prince Edward Island Hospital most closely has 37 per cent more, and the one differing most, 82 per cent more outside wall per bed.

The conventional hospital structure is long and narrow. To ensure proper light and air it is about 40 feet wide, with rooms on either side of a central corridor. The Prince Edward Island Hospital is 80 feet in width, necessitating the location of certain units in the interior and a double system of corridors. Administration rooms, lobbies, kitchens and corridors do not have exterior windows but are top lighted and ventilated by roof

lanterns, those of the ground floor rooms being shown on the second floor plans.

At first thought this radical innovation would seem neither attractive nor expedient, but considering the type of space where overhead light only is used, the visitor is amazed to find how little the windows are missed, and cannot but concur in the soundness of the architects' judgment. Not only are the lighting and ventilating of the interior rooms entirely satisfactory, but the work of the hospital is facilitated by the shortened distances to be traveled. If the building were rebuilt the only thing that might be changed to advantage would be to open up the ends of patients' corridors with windows giving an outside view, largely for sentimental reasons. This space was utilized for patients' rooms because of the necessity for getting maximum capacity at minimum cost.

Perhaps the most novel of the structural features is the envelope of the building. Ten inches of insulation is used in the walls and seven in the roof; the windows are double hung, self-balancing and triple glazed. These unusual safeguards against the loss of heat and penetration of cold make possible an arresting reduction in the amount of radiation required.

Pressure hot water heat, by all odds the best for hospital purposes as well as the most economical in coal consumption, is used. The total radiation throughout the building is 5,100 square feet as compared to 11,000, which would have been called for with ordinary construction, according to the usual method of figuring as shown in the Guide of the American Society of Heating and Ventilating Engineers. In other words, there is a saving in radiation of 53.6 per cent.

The efficiency of the thermal control permits

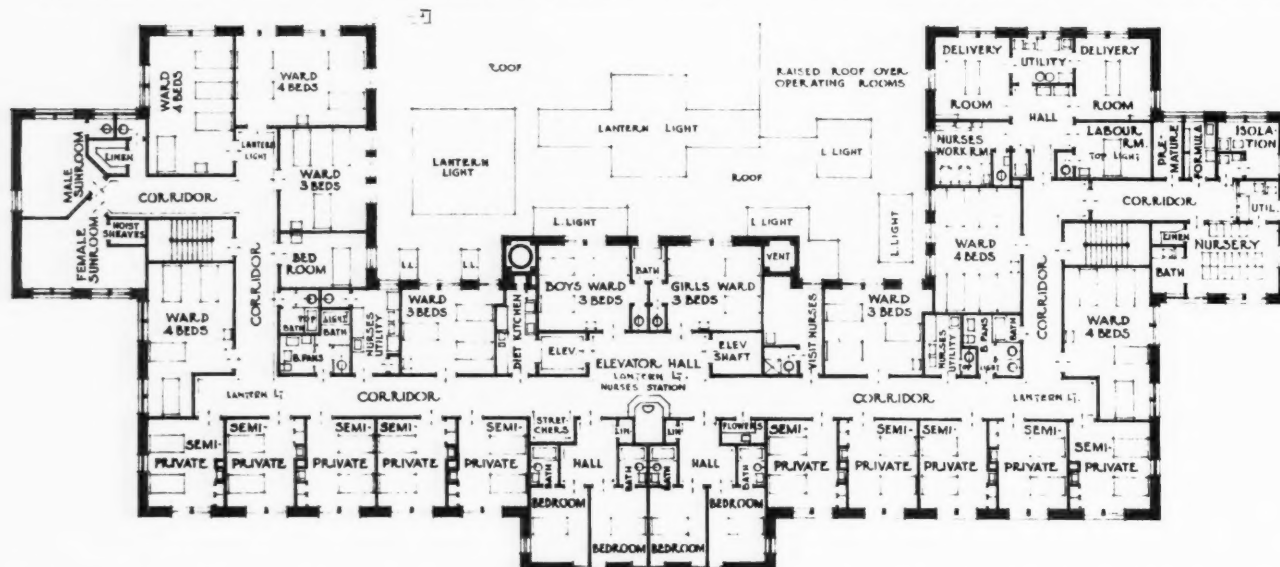
the maintenance of low temperature water in the radiators and pipes. The average for the whole season will not be over 115° F., while most of the time it may be held below 110°. During a recent cold spell the temperature dropped from 36 above to 18 below zero. The flow water temperature carried was 128 degrees, with a time lag of fully forty-eight hours before it rose. The saving in coal will be as high, if not higher, proportionately, than the cut in the amount of radiation. As the cost of the extra insulation is just about written off by the smaller investment for radiation and boilers, the reduced expense for coal throughout the years will be all velvet.

Extra Insulation and Reduced Radiation

Two signal benefits accrue to the patients from this method of heating: (1) high temperature at the inside surface of the walls, roofs and windows will decrease the amount of body heat radiated from patients to these surfaces, thus permitting the breathing of lower temperature air, and (2) the lower temperature of the radiators promotes better air conditions. A certain amount of humidity control is provided by automatic air conditioning units installed in the corridors on the first and second floors and in the nursery, something rarely found in any but the most expensive buildings.

A few strategically placed steam radiators take the chill off the air in spring and fall when the hot water system is not in operation.

Unit ventilators are used in the operating rooms, instead of the common direct indirect radiator, enclosed by a glass screen, under the big window. By omitting the screen there is no extra cost in the substitution. These units are quiet, simple and satisfactory, giving ten air changes an



The second floor is assigned to medical, maternity and pediatric patients. The plan is extremely elastic with three and four-bed wards and a large number of convertible rooms, which may be used for either one or two patients.



The main kitchen is lighted by means of lantern windows. Note the downward venting of the kettles. The special diet room is behind the partition at the right of the picture.

hour of filtered heated air. No drafts are created and ether fumes and other odors are quickly dissipated.

Another important feature in hospital construction is the control of noise. In the Prince Edward Island Hospital this was put in the forefront. A number of new hospitals studied show an average of acoustical treatment of less than 15 per cent of the floor area. At Prince Edward Island the total area of treated surface is more than 100 per cent of the floor area. Yet the cost was only \$7,000 (less than 2½ per cent of the total) more than if the hospital had been built with no acoustical treatment. The area covered is over 43,000 square feet and the material used is acoustical plaster with an absorption coefficient of from 30 to 35. With the exception of operating rooms, x-ray rooms and storerooms, all ceilings and upper walls down to the tops of the doors are finished with this plaster. The results indicate that there is much to be said in favor of large areas of acoustical treatment with moderate absorptive value rather than small areas of material of higher absorption and higher cost. There are only a few places in the hospital where the acoustical control is not entirely adequate.

Had funds been available a product with a higher coefficient of absorption might well have been used on the ceilings of patients' corridors. The application of acoustical plaster all over the

inside of the elevator shaft and the placing of elevator machinery on sound-cushioned foundations, together with the use of special jamb, head and automatic sill gaskets in elevator doors have almost entirely eliminated disturbing elevator noises. The ceilings of machinery, pump and mechanical equipment rooms are all acoustically treated and absorb machine sounds at their source.

Manufacturers Must Help Reduce Noise

Here is a hospital in which far more than ordinary care has been taken to obtain as much sound absorbing surface as possible, where partitions, floors, many doorways and much equipment have been specially studied to prevent sound transmission, and yet in several parts of the building there are fixtures and pieces of equipment that make a great deal more noise than they should. There is a limit beyond which hospital boards should not be asked to go in the effort to quiet their buildings. More cooperation than has yet been given from manufacturers of hospital equipment, machinery, plumbing and supplies is needed, so that patients may derive the greatest possible benefit from expenditures made for acoustical treatment.

In the kitchen are several points of interest. Steam kettles are vented downward in such a way that, without any mechanical assistance, the amount of steam exhausted into the room is minimized. Further to abate the discomfort of a

steamy kitchen, the table for hot food, although serving the purpose of a steam table, is warmed by dry heat instead of hot water, so that there is no steam to escape.

The problem of keeping rooms that are over the boiler and machinery quiet and comfortable is a serious one. In the Prince Edward Island Hospital insulation about 3 inches thick is applied immediately over the ceiling of the boiler and machinery pump rooms. As a further precaution, the spaces within the four square walls surrounding the circular stack from the boiler room are used as gravity ducts to remove the hot air and discharge it out at the copper louvers in the shaft above the roof. The reverse of this problem was presented at the ambulance and goods entrance, where large open doors lead to spaces directly below occupied rooms. Adequate insulation is used to prevent heat flow from above down through the floors.

One feature quick to catch the eye of all visitors is the use of indirect lighting in many parts of the building, and the omission of the ordinary drop type. The small sum spent for lighting fixtures proves that long steps can be made towards concealing light sources without adding to the capital cost of the structure.

However, the outstanding achievement in this hospital is economic. The extent to which an appropriation usually considered only sufficient for a sixty or seventy-bed hospital has been stretched to cover 120 beds, through careful study, scientific planning and conservative pioneering in new methods of construction is astonishing. The accomplishment is even more remarkable when it is realized that a large proportion of the skilled labor had to be imported and boarded, and most of the equipment and building materials brought from Quebec and Montreal.

Construction Cost Amazingly Low

The total of the contracts for the building and fixed equipment was \$281,764. The total community investment for buildings, furnishings, architects' and engineers' fees, and \$5,000 for the land was \$347,000. There are six children's beds, 119 adult beds, of which twenty-nine are assigned to the staff, and twenty-four bassinets, four of which are equivalent in space requirements to one adult bed. The total capacity on this basis is 131 beds, making the average cost \$2,150 per bed for the building and fixed equipment alone, and \$2,650 for the total investment. As a matter of fact, with some temporary staff rooms now in use on the ground floor, the hospital is at present accommodating 145 beds, including the nursery allowance of six.

Illuminating is an analysis of the size and cost of this hospital in comparison with a New England hospital of conventional design and construction, completed at about the same time. All the comparative figures are arrived at on a uniform basis, four bassinets being counted as one adult bed:

	<i>New England</i>	<i>Prince Ed- ward Island</i>
Total capacity in adult beds	70	131
Cubic content of building	336,300 c.f.	550,000 c.f.
Average c. f. per bed	7,760	4,190
Total cost of building and fixed equipment	\$359,931	\$281,764
Average cost per adult bed	\$5,199	\$2,150
Average cost per cubic foot	.67c	.512c

The New England hospital is a T-shaped building of the usual steel and reinforced concrete construction, four stories high including the basement, with wings 40 feet wide. It was designed and built as economically as the conventional standards followed would permit. There is little to choose between the two in the facilities which they offer for patients' care, the quality of the finish, the adequacy of equipment and utilities.

Demonstrates Value of Compact Plan

In the Prince Edward Island Hospital there has been no false economy in space. Adequate areas are provided for service and for patients' quarters. The size of the patients' rooms are substantially the same in the two buildings. The Canadian hospital has four times as much acoustical treatment, better heating—hot water instead of vapor—and the invaluable thermal insulation in walls, roofs and triple glazed windows. The New England hospital has, on the other hand, its power plant in a separate building and more complete and expensive steam laundry machinery, the latter representing a cost difference of \$4,200. This hospital, if enlarged to a capacity of 130 beds, would have cost at least \$500,000 or some 85 per cent more than was spent at the Charlotte-town institution.

The New England cost per bed is nearly two and a half times that of the Canadian, whereas its cost per cubic foot is only 31 per cent higher. The great value of a compact plan is clearly demonstrated.

As Dr. Harvey Agnew, secretary of the Canadian Hospital Council, said at the dedication exercises, "The Prince Edward Island Hospital has, truthfully, more modern features than have ever been developed, to my knowledge, for the same amount of money per bed. . . . You are not only up to date," he declared enthusiastically, "but in many respects you are ten years ahead of your time."

Laying Out the Dietary Department^{*}

By HELEN F. MURISON

Dietitian, Brantford General Hospital, Brantford, Ont.

IN NEARLY all hospitals constructed during the last two or three years the dietary department has been located either on a lower floor or in a separate unit. Recently there has been some reconsideration of the top floor location for the kitchen, a plan which met with favor some years ago. However, with the facilities for lighting and ventilation and the tendency toward centralization in the modern American hospital, it is likely that the prevailing practice of placing the kitchen department on a lower floor will continue to be the arrangement of choice in the large majority of institutions.

From time to time efforts have been made to establish fixed formulas to express the amount of kitchen space required for hospitals of given bed capacity. This space requirement depends to a considerable extent upon whether direct or indirect food service is adopted. If central service from the main kitchen is adopted, the preparation of the individual patients' trays in the main dietary department will necessitate increased floor area in the main kitchen. This is offset by a decreased area required in the floor diet kitchens and by other advantages.

Space Should Be Rectangular in Shape

The space allowance required for a central service kitchen in larger hospitals would vary from 8,000 square feet for a hospital with a bed capacity of 300 to that of 12,500 square feet for one of 600 beds. Smaller hospitals have reduced space accordingly. One of the best equipped thirty-bed hospitals in the country has a kitchen and dining-room space of slightly over 2,000 square feet. The plans prepared by the department of public health of Saskatchewan provide 1,200 square feet for kitchens and dining room for a fifty-bed hospital, 720 square feet for a twenty-bed hospital and 336 to 375 square feet for ten-bed hospitals, exclusive of corridor space.

If a special kitchen for the nurses' home is required, the space allowance for such would be in addition to the foregoing.

The plan will vary of necessity with the general plan and layout of the hospital, but, in a general

way, the space should be rectangular in shape with the cooking section centrally placed. Surrounding this section on three sides can be arranged the butcher and bake shops, the salad and vegetable preparation rooms. All serving should take place at the point nearest to the service elevators where serving tables and beverage pantries should be placed. Opposite the beverage pantry an alcove should be planned where the electrically heated trucks can be kept.

Separate Dining Rooms for Various Groups

The special diet kitchen should be contiguous to the main kitchen, together with the nourishment room; also, if cafeteria service is to be adopted for the nurses and the help, the cafeteria should be approached directly from the main kitchen. Often it is possible and practical to plan for stores and dishwashing on a floor beneath the main kitchen, served with stairs and the service elevators or dumb-waiters.

It is a current practice to provide separate dining rooms for student nurses, graduate nurses, doctors, administrative staff, the help, the superintendent and guests. Some hospitals now provide a dining room for the friends of patients. When a cafeteria system is used, the dining rooms are naturally placed in conjunction with this service. The doctors' and administrative staff dining rooms have waitress service as a rule. Many smaller hospitals would necessarily have to effect a compromise in the provision of the various separate entities herein described.

In the majority of hospitals all employees are fed in the hospital. There is a growing conviction that certain groups of employees, particularly in larger centers, could be allowed to live out and partake of but one or perhaps two meals in the hospital. Willingness to experiment with some of these plans might lead to the elimination of at least a part of this food service to all employees and to a corresponding reduction in the cost of hospital construction.

In every hospital in which it is financially possible, it is advisable to have a dietitian, particularly when there is a training school. In a hospital of 100 beds or more, a dietitian is necessary and one graduate for every hundred beds should

^{*}This article covers portions of Miss Murison's report as chairman of the committee on dietary arrangements of the Canadian Hospital Council.

be the rule. It is not advisable for hospitals of less than 100 beds to give student dietitian courses. Such courses, to meet the requirements of the American Dietetic Association, should be of at least six months' duration.

Relations of the dietitian to other personnel are worthy of consideration. The chief cook should be responsible to the chief dietitian. The purchasing agent, who is under the superintendent, works in cooperation with the dietitian in the purchase of food. Samples of new lines should be submitted to the dietitian.

As chief dietitian, she is directly responsible to the superintendent. She is also responsible to the director of the school of nursing for the training of student nurses. Classes in dietetics should be arranged for student nurses by the dietitian who should have the cooperation of the superintendent of nurses.

Now let us consider a plan of layout for the dietary department in both a small and a large hospital. Let us first consider a hospital with a capacity of fifty beds.

In the main kitchen, for preparation of meals

for patients, nurses and help, the following large equipment is essential: heavy duty range either gas or electric, steam table, set of electric ovens, small dishwashing machine, dishwashing sink, deep sink for vegetables, noncorrosive metal table, long wooden table, tray rack, small size mixer, a cupboard for china and one for staple supplies containing bins for flour.

The diet kitchen equipment depends on the number of special diets served.

For refrigeration, a storage refrigerator will be needed and a refrigerator for milk, cream and butter. If meats are bought in sides and carcasses, it is wise to have a section of the large refrigerator divided off for the meats, reserving the larger part for miscellaneous perishables.

Storage space should include vegetable and fruit bins for the storage of fruits and vegetables that are not perishable.

A fruit room is necessary if the hospital uses home canned and preserved fruits. This room should be equipped with shelves and should be moderately cool.

A storeroom is needed for staple groceries. This



This drawing shows in detail the layout of the dietary department in the new Halifax Infirmary, Halifax, N. S.

room must be lined with shelves and must have bins or barrels for storage of bulk supplies. It is imperative that all storerooms be equipped with good locks.

Dining room space for nurses and staff requires approximately 12 square feet per seat. It should be convenient to the main kitchen, and if on the same floor may be approached through a serving pantry. If it is on the floor above or the floor below, it should be directly over or under the main kitchen and connected by a dumb-waiter.

There may be a separate dining room for the superintendent. This is particularly desirable if there is a training school.

The employees' dining room may be on the opposite side of the serving pantry. Employees should not be required to go into the main kitchen for their food, as this tends to cause dissatisfaction, and frequently results in the cook serving them with food not on their menu.

Serving pantry equipment should include cupboards for china and drawers for silver.

Layout for Hospital of 300 Beds

When a conveyor system is employed, the equipment varies with the menu served. There must be the following pieces: steam heated conveyor, hot and cold nourishment table situated near dumb-waiter, a number of large tray trucks, small food trucks, large and small work tables, food racks, a large heavy duty range, steamers, stock pots, mixers, and a deep fat fryer.

For the special diet unit there are needed a small stove, steamer, and stock pot.

Refrigerators must be spacious and located near the working units. There should be one each for dairy foods, fruits and vegetables, and one for baker's supplies.

The dishwashing room should be equipped with a glass and silver machine and a large china dishwasher, large racks for stacking dishes and two small trucks. Ceiling and walls should be sound-proof and moistureproof.

The bakeshop should have work tables, pastry table, mixer, steamer, gas plate, cupboards for staple supplies and spacious ovens. If ice cream is to be made, an electric freezer and packer are necessary along with several packing tubs. This equipment should be situated near the bakeshop.

Near the chef's unit and equipped with large refrigerators the butcher shop should be located. It needs to have a food chopper, meat slicer, sinks, work table and cutting block.

The vegetable room adjoins the chef's department and should have adequate storage space, consisting of shelves and bins, at least two sinks, a potato peeler and two large work tables.

When heated trucks are used for the hospital food service the equipment may be the same as that used in the foregoing service, with the omission of conveyor, food racks, tray trucks, hot and cold nourishment tables, and the addition of approximately five or six electrically heated tray trucks, and cold trucks.

For dumb-waiter service, the equipment is the same as that necessary for the conveyor system, with the omission of the conveyor.

Equipment for the Dining Rooms

In the staff dining room, the following items will be essential: steam table, toaster, service truck, two serving tables, one coffee urn, one hot water urn, supply cupboard, china cupboard and sink.

The nurses' dining room needs a steam table food truck, coffee and hot water urns, toaster, cold urns for water and milk, china cupboard, bread cutter, work table and sink.

Equipment for the employees' dining room is the same as for the nurses' dining room. Maid service for staff dining room and cafeteria service for nurses' and employees' dining rooms are most satisfactory.

The diet kitchen should be near the main kitchen. The following equipment is suitable for cooking foods in small quantities: blackboard, light duty range, refrigerator, small size mixer, fruit juice extractor, toaster, small stock pots, work tables, cupboards, sink for preparation of vegetables and sink for dishes.

If the diet kitchen is to be used as a teaching laboratory, it will need to be larger and to have additional equipment.

Layout of the Formula Room

The dietitian's office needs to be close to the diet and main kitchens, and also easily accessible to doctors and members of the staff who may wish to interview the dietitian.

A formula room is necessary in a hospital that has a children's department. In some hospitals, it is under the nursing department, but when there is central service, it is more usual to have it in the dietary department.

Such a room contains the following equipment: bottle washing and sterilizing equipment, water sterilizers, incubators, cereal cookers, hot plates, warming cabinets, work tables, refrigerator, and cupboards for equipment and supplies.

Storerooms should be convenient to both the receiving room and kitchens. The size depends on the buying policy of the institution. They should be dry and well lighted and should have shelves and bins for canned goods and bulk supplies.

What Others Are Doing

Hospital Appreciation Week Arouses Public Interest

"To acquaint our community with the work we are doing and to stimulate a feeling of the necessity of paying accounts, we launched Hospital Appreciation Week this fall," writes Ella M. Shaw, bookkeeper, Helena Hospital, Helena, Ark. Miss Shaw explains that in the fall there is more money in circulation in the South than at any other season.

Posters, made voluntarily by young boys with talent for lettering, were displayed in prominent places over the county and city. Ministers announced the observation of the special week on the preceding Sunday and articles in the local paper each day dealt with the hospital's work and the need for funds.

Use of Cotton Towels Proves Economical

Touro Infirmary, New Orleans, formerly used 110 cases of paper towels a year at a total cost of \$382.95, writes Dr. B. C. MacLean, superintendent. There was great waste in the use of paper towels and it was decided to employ cotton toweling on patent racks as supplied by commercial towel supply companies.

Towel shelves were made in the institution's carpenter shop. Rods and locks were purchased from the manufacturers after obtaining a release from the local towel service company. Fourteen-inch boot toweling cut in sixteen-inch lengths is used. A grommet punch is used and grommets are put in the center of each towel. The portion through which the grommet goes is reinforced by a two-inch square of yellow muslin. Average washings per towel have been found to be 350.

Water Softener Pays Immediate Dividends

Regina General Hospital, Regina, Sask., has installed a zeolite water softening plant, large enough to supply the hospital's total water needs, at a cost of about \$3,500. Substantial savings have resulted in the laundry and the boiler rooms, according to S. T. Martin, assistant superintendent.

The quality of water has a direct bearing not only on the cost of laundry supplies but also on the appearance of

the work done and on the life of linens. Since water at Regina has about 40 grains of hardness and since it is estimated that two ounces of soap is destroyed for each grain of hardness in 100 gallons of water, it is obvious that the use of hard water was proving rather costly. The hard water was likewise unsatisfactory in the boiler rooms since it necessitated frequent shutting down of boilers to remove scale and repair hot water lines.

Prior to installation of the water softening plant, average monthly soap and washing soda costs at Regina General Hospital were \$93 and \$115, respectively. These figures have been reduced to \$13.50 and \$8, respectively. The saving has been equally notable in the boiler room. Instead of closing down a boiler every two or three months, they are now run six months. The hospital has saved \$18 a month for boiler compound and the wages of a boiler cleaner for a month each time a boiler was taken off the line. The saving in fuel due to lack of scale is also considerable. Mr. Martin warns that unless the proper mixture of hard and soft water is used in boilers pitting is likely to occur.

No additional employees were required to handle the softeners. The cost of salt is approximately \$100 a month.

Patient's Impressions Noted as He Leaves

Follow-up systems of various kinds have been devised to secure from the patient who has just left the hospital reasons for dissatisfaction or gratification over the service rendered. Some have proved effective; others have been disappointing. Too often the follow-up by postal card or letter fails to bring any response from those whose opinion is really valuable.

The plan worked out in Toledo Hospital, Toledo, Ohio, has much to commend it. The information is secured from the patient before he leaves the institution—right at the cashier's desk where he must go to pay his bill. As

the young lady in charge returns the receipted bill, she inquires what the patient's general impression of the hospital has been and also his feeling about the food and nursing services.

The information thus secured is noted on a form specifically designed for that purpose. Columns are provided for the patient's name and address, his room number, length of stay, his general impressions of the hospital and anything particular he may contribute about the food service and the nursing service. Thus, comments may be recorded as follows:

Under general impressions—"Wife of patient said the service was excellent."

Under food service—"Food was very good. Had been agreeably surprised. Thought trays very tasty."

Under nursing service—"Special nurses most of the time and was well satisfied."

At the end of each day these notations are compiled and typed on a sheet which is placed in a box for inspection. The advantage of the plan, as George W. Wilson, superintendent, explains, is that "any faults can be detected without delay and brought to the attention of those responsible; any complimentary remarks likewise can be passed on, which always helps."

Central Supply Room Supervision Pays Big Dividends

Since the central supply room at Baptist Memorial Hospital, Memphis, Tenn., has been placed under the direct supervision of a graduate nurse, an average saving of \$1,000 a month has been effected, according to George D. Sheats, superintendent.

In this room are kept all special instruments belonging both to the hospital and to staff members such as proctoscopes, cystoscopes, ophthalmoscopes and diathermy apparatus. The nurse in charge is solely and directly responsible for the instruments themselves and it is her further duty to see that they are kept in perfect working order at all times.

This supervision has proved to be a special service to the staff. It also enables the hospital to save maintenance expense and prevents loss of special equipment used in the entire hospital.

Probably you can think of one or more practical ways to save time or increase efficiency. The Modern Hospital will welcome your ideas to put before other hospitals



Log Cabin in Wyoming Serves as St. John's Hospital

By RAYMOND P. SLOAN

Associate Editor, The MODERN HOSPITAL

AT THE very foot of the Grand Teton Mountains in the heart of the Jackson's Hole region of northwest Wyoming lies Jackson. Mountains high, and of empowering beauty surround the valley, the floor of which lies at an elevation of 6,000 to 7,500 feet and averages about twenty miles in width and seventy miles in length.

During the whole of the long, snowbound winters stretching some years over as many as eight months, this wild section of the country is almost completely exiled from the outside world. Its formidable barrier of mountain ranges is rendered the more impregnable by banks of snow running to a depth of five to twenty feet and making travel in and out of the valley during the winter season extremely hazardous. Transportation is chiefly by old-fashioned horse drawn bobsleds which carry all of the mail and freight over the dangerous Teton Pass from the nearest railroad point, twenty-seven miles away.

With the advent of summer, however, Nature, desirous no doubt of atoning for the hardships she inflicts over so long a period, bestows bounteous gifts upon the region. Valley and mountain sides blaze forth in a glory all their own. Down from the mountain ranges ride rough-and-ready cowboys to thrill the summer guests at the dude

The second Little Journey to interesting hospitals and hospital people carries us to the foot of the Grand Teton Mountains in the heart of the Jackson's Hole region of northwest Wyoming. There we find a modern unit of twenty-five-bed capacity, built very appropriately of logs but modern in its equipment. It represents the confidence of practically the entire community in one man,

Dr. Charles W. Huff

ranches in the valley with their astounding feats of prowess. In this land of wild beauty may be found the source of many a good western yarn embodying romance, adventure, mystery and heroism.

The dauntless spirit of the pioneer which characterizes the West is apparent at once in Jackson's Hole. Particularly is this so in a building fittingly and uniquely constructed of logs, a story and a half high, built in the form of a double cross. This, the headquarters for the "Doctor of Jackson's Hole," is a well equipped and modern hospital of

twenty-five beds, known as St. John's. Around it is woven a tale of pioneering, self-sacrifice and achievement as stirring as any that have yet come out of the West.

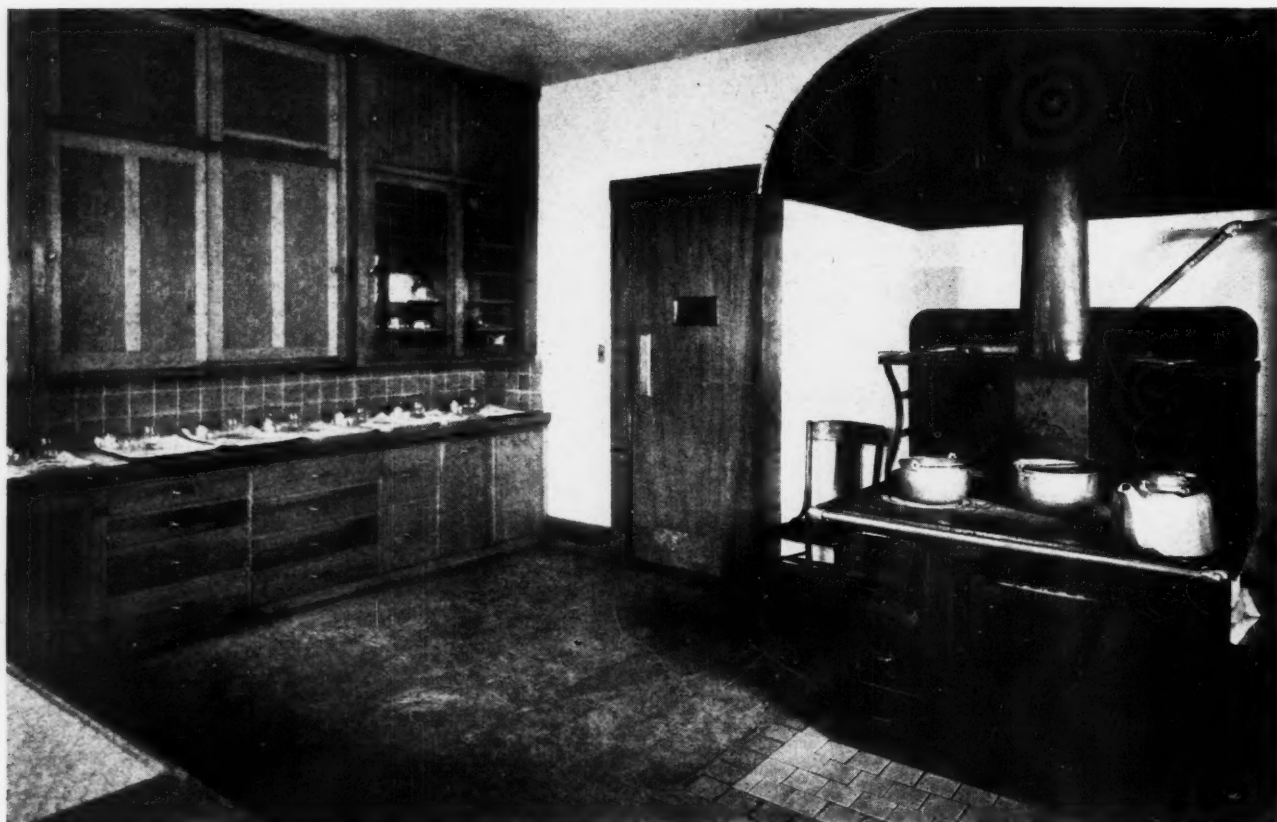
It is appropriately termed the headquarters of the "Doctor of Jackson's Hole" for had it not been for the confidence of the people in their doctor for over twenty-one years, the chances are there would have been no hospital in Jackson's Hole today. Just one man to keep the hospital busy, yet in the past two years, despite the depression, the little medical unit has paid its running expenses.

To appreciate fully this accomplishment in

emergency room. The sterilizing room is completely modern with electric operation, and a splendidly equipped x-ray unit is also available.

The second floor of the building contains a modern nurses' home and ample storage space for equipment and supplies. The full basement houses a modern steam heating plant, a commissary, laundry room and an emergency light plant.

The inside walls of the hospital are finished in plaster, enamel and tile. All floors, except those in the operating rooms, the small surgery and the bathrooms, which are tile, are covered with heavy inlaid linoleum over deadening felt. They are reg-



This larger kitchen was installed along with other improvements in the spring of 1919. A generous gift from a Seattle business man made this development possible.

bringing modern hospitalization into a remote section, it might be well for us to look around the building first and then go back twenty-one years and see how it all started. The main corridors which form the crossings and the key to the architectural scheme end in four-foot exits. In an emergency, therefore, the building can be emptied quickly.

Seven private rooms are included, four with baths, also seven semiprivate rooms and one four-bed ward. The ward and semiprivate rooms are equipped with cubicle curtains. There is a large and well lighted operating room with scrub-up, instrument and doctor's dressing rooms, also a small but modern laboratory, a pharmacy and an

ularly waxed and varnished. All doors are 4 feet wide. They are equipped with modern hospital hardware with no knobs to rattle or hinges to squeak. The entire hospital is fitted with metal furniture and includes a fracture bed with all appliances.

With this brief glimpse in mind of the hospital as it stands today, it seems expedient to go back twenty-one years to recite the experiences of a young man, Dr. Charles W. Huff, who having graduated from the University of Maryland medical school and completed various internships in Eastern hospitals, had been advised because of threatened ill-health to "go to the woods and practice medicine." Contact with the Rt. Rev. Nathaniel

S. Thomas, Protestant Episcopal Bishop of Wyoming, who was at that time searching for a doctor to go into the Jackson's Hole region, convinced Doctor Huff that he should like to cast his lot with the mountain people.

His experiences during those first years in the valley were such as to discourage a far more hardened pioneer. There was no other doctor within 125 miles on whom he could call for help or to share responsibilities in the many emergencies that arose. Calls at night meant journeying far out into the mountains in blizzards, traveling by sleigh, on horseback and then finishing the trip by putting on

that my vision for the future quailed at such an abrupt beginning and that I demurred at the obvious difficulties in the way of such a move. During that same day the clergyman secured from the bishop the permission to acquire and hold the property in the church's name and a pledge of the last \$300 toward the building. Lots were acquired from the town saloon keeper, one by purchase and the other by gift. Logs were contracted for, and the next morning, April 16, 1916, we shoveled away four feet of snow to reach the site of the first building operations. This building and its equipment cost \$4,300. The money was raised by



The decoration of the lobby carries out the log cabin effect. Inside walls of the hospital itself are of plaster, enamel and tile. All doors are 4 feet wide.

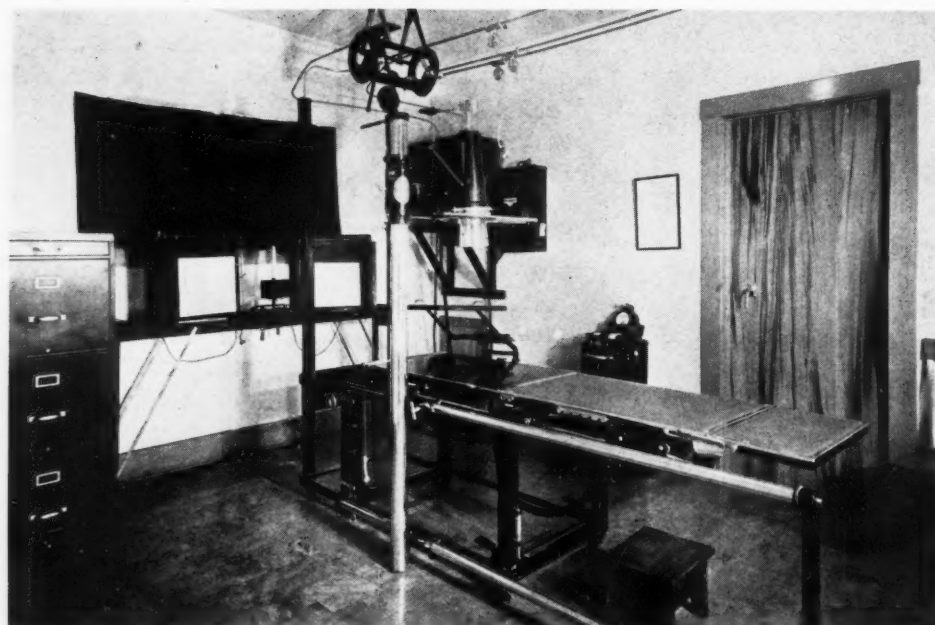
snowshoes and "mushing" with a bag of supplies to care for some suffering child or anxious mother. In those days it was often necessary to transform primitive log cabins with the usual dirt roofs into emergency operating rooms. The operating table would comprise a combination of store boxes or a kitchen table with light from a small window or kerosene lamp. All the time that this was going on, the young medical man kept looking forward to the day when the isolated mountain valley would have modern hospital service.

The first realization of his dreams came unexpectedly. "One spring," as Doctor Huff tells the story, "the clergyman of the church in Jackson suggested that 'we' build a hospital. I must admit

pledges, by free labor, by public entertainment, in fact, by every method in which the services of the church could engage.

"When completed, the structure included two two-bed rooms, a kitchen and service room, a small operating room and a cubicle for an office. Our first registered nurse came in June of that year, and we began to function as a hospital. The financial management was vested in a nonsectarian community board of twelve members. From the beginning, the board functioned, even at times to the extent of a personal guaranty of the nurse's salary. Small as the hospital was, it served the community well for the first two years.

"The second chapter started in the spring of 1919



The x-ray department has been the recipient of several gifts which accounts for its up-to-date equipment. A Chicago meat packer contributed \$1,000 to equip this department.

when an addition to the building was made possible through the interest of a wealthy Seattle business man who had large ranch holdings in the valley. So impressed was he with the work which was being done with such meager equipment that he proposed an enlargement and even agreed to finance it. His gift of \$12,500, together with \$3,200 received from other sources, made possible additions to the extent of half of the original structure. When these improvements were completed, the hospital found itself with six patients' rooms, a larger operating room and kitchen, a water system and baths, electric lights, a modern heating system, and a corresponding increase in equipment."

Donations Are Generous

It is significant to note how the community rallied to the support of its new little hospital. Its maintenance was entirely through voluntary contributions and fees for service. There was one extremely stormy February night when the whole valley, so far as sleighs, snowshoes and skis permitted, gathered in Jackson and paid \$638 for the privilege of eating the basket suppers which the ladies had prepared for the benefit of the hospital. Again as the result of a short talk by the head nurse, the guests of one of the valley's dude ranches furnished \$1,800 in cash for the hospital.

At the beginning of 1925 difficulty was again encountered in meeting the demand for room. Whereupon a systematic campaign for additional space and equipment was started. The results still further showed the attitude of the mountain people toward the hospital, to say nothing of the appreciation of summer visitors and men of big interests who own property throughout the section. The

roster of donors to this campaign includes many names found in the "Who's Who" of church, of politics, of finance, of press and of business. From one great churchman came \$2,000 a year for five years to meet the salary of the head nurse and for the janitor. Another cleared away the accumulated deficit of several thousand dollars. From a down-east bishop came \$5,000 for the building fund. One of the foremost political women in the United States volunteered a substantial sum and a Chicago meat packer contributed \$1,000 to add to the x-ray equipment. A family whose daughter lost her life climbing in the Tetons gave \$10,000 for the new operating room.

Since its inception five additions have been made to St. John's, bringing the institution up to its present capacity of twenty-five beds. The hospital, too, because of the public's friendly attitude toward Doctor Huff and the work he has done, boasts a modest endowment.

Two old prospectors left their estates to the hospital for endowment purposes. After going through the long process of settlement, these estates are now both in income bearing securities with a value of about \$10,000.

Ownership of the hospital is invested in the Missionary District of Wyoming of the Protestant Episcopal Church. "Until August of 1928," Doctor Huff explains, "the management was in the hands of the bishop's committee of the local mission of that church. At that time under the guidance of another clergyman, the operation was placed in the hands of a committee outside the local church. This board is drawn from local people of business and professional standing and from the Eastern people who spend their summers in the valley. At the time of its formation, the board assumed respon-

One of the private rooms at St. John's, of which there are seven altogether, four with baths. Metal furniture is used and the appointments are modern and attractive.



sibility for the operation and the possible financial deficits of the institution for a period of five years. This arrangement which ended in August, 1933, has been continued for a like period by the mutual consent of the board and the church. The position of head nurse was changed to that of superintendent. Thus the strain upon both the church and upon the local hospital staff has been removed."

The fact that the community has not only supported the hospital but has actually used it is revealed in statistics covering the last five years. Average patient admissions have been 320 per year or a total of 1,602 for the period. Total deaths in the hospital have been twenty, or a yearly average of four. The approximate number of out-patients for the period has been 7,500, or a yearly average of 1,500. The staff includes the superintendent, Mrs. E. Helen Lang, and three to six graduate registered nurses, one cook, one janitor and one maid during the busy summer season.

An Old Dream Comes True

Everyone within a radius of two hundred miles is served by St. John's and among its clientele may be found fashionable visitors to the dude ranches in the valley, as well as cowboys from the mountain ranges and mountain folk who have long inhabited that section. During the years of St. John's history, its territory has increased in population possibly tenfold, and it is a matter of pride to the institution that at least some of this increase may be attributed to the existence of the hospital.

It is explained by Doctor Huff that many people every year remark that they could not think of living in so isolated a community were it not for the fact that they feel that their physical mishaps can be carefully cared for by the hospital. "Such

a territory," says the doctor, "still is and must always be sparsely settled, but the wild outdoor life of its people creates hundreds of opportunities for St. John's services each year. These emergencies, together with its care for the health of its several thousand people, ensure for the hospital a busy and useful life."

So, after twenty-one years a dream has been realized. No longer is Doctor Huff obliged to transform mountaineers' cabins into emergency operating rooms. He has at his disposal all the efficiencies of modern surgery with a well organized staff of assistants to carry out his directions. His dream of introducing modern hospitalization into the mountains of northwest Wyoming, which twenty-one years ago seemed so remote, has come true despite the fact that during his whole life in Jackson there has been no other resident physician.

During these twenty-one years he has become more than the sole physician on the staff of the hospital. He is mayor of the town, chairman of the state relief committee, chairman for the NRA in the community and he holds offices in the church, clubs, schools—wherever leadership is required.

He is more, even, than physician to the community. He is friend, legal and financial adviser to all.

Aside from the hospital, there is something that Doctor Huff is justified in pointing to with pride. It is a loving cup tendered him when he returned to the valley in October, 1932, after having been made a fellow of the American College of Surgeons. It is inscribed "Presented by loyal citizens of Jackson's Hole to Dr. C. W. Huff for distinguished service."

And that is precisely what it is, "Distinguished Service."

Six Considerations in Organizing an Out-Patient Department^{*}

By JOHN E. RANSOM

Assistant Director, Johns Hopkins Hospital, Baltimore

GOOD work along almost any line presupposes the following of a well developed plan. Any plan that entails the coordinated activities of a number of individuals must be based on some organization of those individuals and activities. Good out-patient service is no exception to this general rule. A scheme of organization of an out-patient department should cover the following points: administration, medical staff, nursing service, social service, other personnel and procedures.

Since the out-patient department is an integral part of the hospital, its chief administrative officer is the director or superintendent of the hospital. The efficiency of the department will depend in a considerable degree on the interest the superintendent manifests in that phase of the hospital's activities.

If the size of the institution warrants it, the supervision of the out-patient department may be delegated to a subordinate officer, perhaps a regularly designated assistant superintendent. This officer should be vested with authority commensurate with his responsibility. In case the officer is a nurse, she should be designated a member of the administrative staff of the hospital and should be directly responsible to the superintendent and not to the superintendent of nurses.

Making Staff Positions Attractive

The medical staff of the out-patient department must be considered an essential part of the hospital staff. This need not mean that those members of the staff who serve only in the out-patient department should have a voice in determining medical policies that do not concern that department. But if members of the out-patient staff come to feel that they are stepchildren or poor relations of the hospital family, that point of view will be reflected in the quality of their work. The idea that men who are not sufficiently competent to treat patients on the wards of a hospital may be acceptable to serve in its out-patient clinics is

Take the matter of the out-patient medical staff, for example. Its members have to be made a part of the hospital family group. They don't fancy being treated as stepchildren or poor relations. Then there's social service—a real factor in community social planning. Or is it now, in your hospital? These are two considerations out of the six mentioned

hardly tenable if the hospital is seriously interested in the welfare of its out-patients.

Without question, the problem of securing a competent out-patient staff and of maintaining and developing the men's interest in their work is difficult. True, younger men may be attracted by the opportunity afforded them to see a large number of patients, particularly if they can work along with older and more experienced men from whom they can learn. But most dispensary physicians sooner or later tend to find the work burdensome because of diminishing returns from their investment of time and energy. For this reason, a hospital that wishes to maintain a high degree of interest and efficiency on the part of its out-patient staff will seek means of making its dispensary work as interesting and valuable to its staff as possible. Just what the hospital can do to that end will depend on several factors.

In some hospitals a doctor may become a member of the out-patient staff and by doing good work may earn promotion to the general staff, with ward privileges and the possibility of further advancement in rank and preferment. But

^{*}This article is one of the Hospital Organization Series, under the direction of Dr. Winford H. Smith.

this is not always possible. It is less likely to obtain in teaching hospitals, particularly in those connected with medical schools having paid faculties. The doctor who becomes a member of the out-patient staff is likely to find the road to advancement blocked by more than one obstacle. He may not want a full-time teaching position and, should this be his desire, those who control such appointments may not consider that he has a flair for teaching or they may prefer other doctors for such positions as become available.

Good Facilities Needed for Good Work

Again the hospital may or may not afford to its out-patient staff facilities that are essential to good medical work. The out-patient physician should have at his command all the facilities that are necessary for accurate diagnosis or for adequate treatment. The hospital that provides better diagnostic and therapeutic facilities for its ward and private patients than it does for dispensary patients is not playing fair with either its out-patient staff or their patients. This type of starving of dispensary physicians is a factor of no small consequence in making out-patient service unattractive to many young physicians who would otherwise be available, interested and valuable.

The value of their connection with the out-patient service on the part of young physicians will be enhanced if the older, more experienced members of the hospital staff act as consultants and advisers. A scheme of out-patient staff organiza-

tion that places responsibility for the service on the shoulders of members of the attending and associate staff is highly desirable.

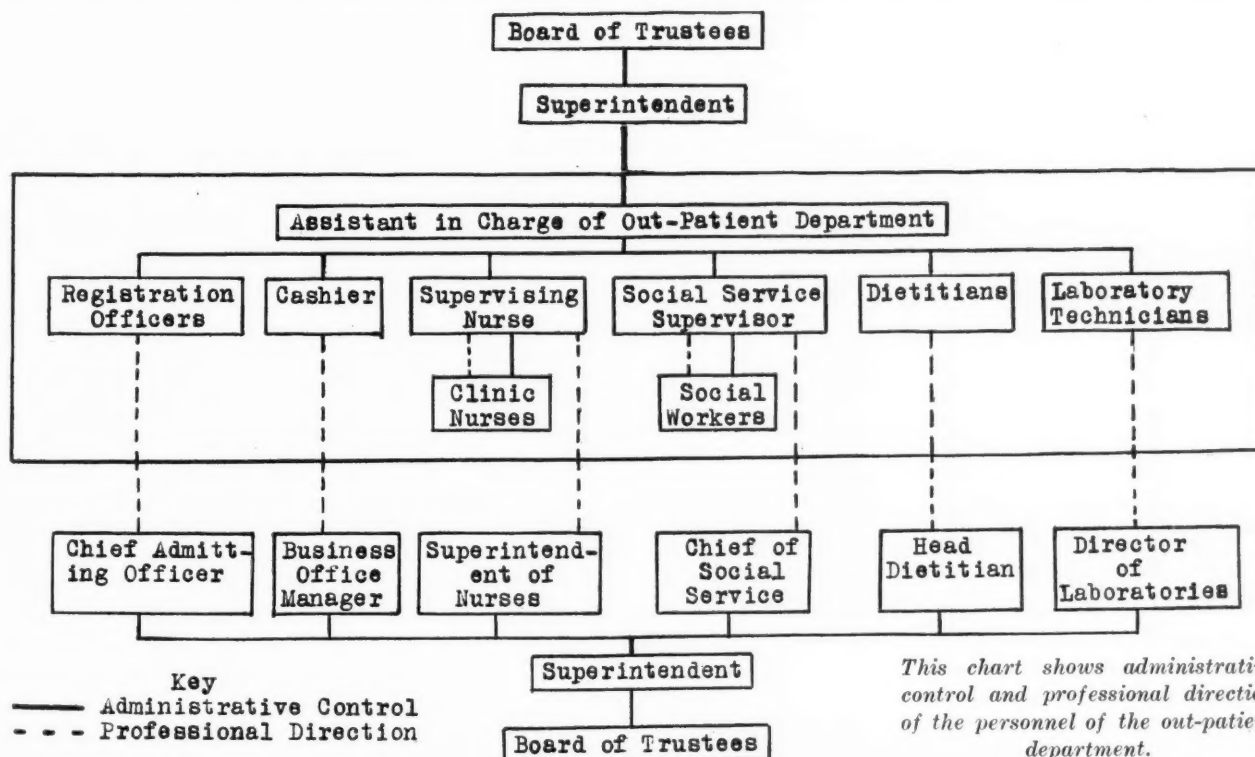
Every physician who serves on the out-patient staff, no matter for how short a period, should be definitely appointed by the board of trustees, or in case of temporary service, by its authorized agent, the director of the hospital.

Appointments are best made on an annual basis. Men who have not demonstrated ability and interest in their work should not be reappointed.

Most hospitals of considerable size have a medical board chosen from the medical staff. This board consults with the board of trustees and the director concerning matters of medical policy and kindred subjects. It is the medium through which the staff communicates with the board of trustees. If a hospital has a large out-patient department, it may well have an associate medical board composed of active members of the out-patient staff.

To Whom Is Supervising Nurse Responsible?

In a large department there should be a supervising nurse to direct the nursing in the several clinical divisions. So far as the professional and technical aspects of the service are concerned, this supervising nurse should be responsible to the superintendent of nurses. As to the administrative aspects of her work, she should be responsible to the director of the hospital, through whatever administrative officer is detailed to manage the out-patient department. If possible, a graduate



nurse should be detailed to each out-patient clinic, where she will be on duty during every clinic session.

Greater need exists for social service in connection with the out-patient department than with ward service. Many ward patients can profit by the help of the social worker, but a larger percentage of the dispensary patients need that help. For one reason, the out-patient department has a concentration in special clinics of patients who present similar social problems. Specifically, there are the tuberculous, the syphilitics, the diabetics, the crippled children, the cardiac patients and the unmarried mothers. A social worker attached to a clinic that treats patients coming within any of these groups has a well defined, highly specialized problem with which to deal; she should be able to do social work of high grade.

Social service in the out-patient department should be part of the general social service of the hospital. In a large institution there should perhaps be subdivisions of the social service department in charge of competent assistant directors, who are responsible to the director or chief on the whole social service department.

Social Service Is Liaison Officer

In any community of considerable size much interchange of information will take place between the hospital, particularly its out-patient department, and various social agencies of the community. Clients of the family welfare and children's agencies will visit the various clinics of the dispensary. Members of the medical staff will wish to have information concerning living and employment conditions of patients who are known to these social agencies. On the other hand, the social agencies need to know the physical and mental conditions of many of their clients, the degree and probable duration of their incapacity, the limitations that their physical and mental conditions put on their work capacities, and other information the hospital can provide which will help the agency in its social planning.

The social service department of the hospital, particularly that part of the department that functions in relation to out-patients, is the logical liaison officer between hospital and community social agencies. Carefully selected and supervised foster homes, either temporary or permanent, for children with special physical or mental handicaps is a service that can be best developed by means of close and cordial cooperation between the hospital and child placing agencies. Cardiac patients, cripples and other physically handicapped individuals can be best served if the hospital that treats them works in cooperation with occupational

training and placement organizations of the community. Participation in such joint programs is one of the most important functions of a hospital social service department.

In addition to doctors, nurses and social workers, various other types of personnel have become recognized as essential in the larger out-patient departments. In this group will be found registration officers, dietitians, laboratory technicians, physiotherapists, clinic managers, cashiers, clerks and stenographers. A discussion of their respective functions is hardly necessary, but this should be said—they should have such supervision as will ensure the accuracy and efficiency of the work they perform.

Out-patients who can do so should bear at least a part of the cost of the service they receive. Consequently, an out-patient department should have a registration officer or officers whose function it is to decide as to the eligibility of those who seek dispensary treatment, as to who shall be accepted as free patients and who shall be required to pay and how much. Registration officers need social service training, but they should be a part of the administration of the hospital rather than of the social service department.

A record of the history, physical examination, results of laboratory and x-ray findings and treatment must be recorded in the case of each out-patient. Notation of findings and treatment should be recorded on the patient's history for each visit he makes to an out-patient clinic. Out-patient histories should be included in the unit history system of the hospital. In this way all data that the hospital possesses on any patient are available for the physician who may be observing or treating him in clinic or ward.

The integrating of all out-patient department procedures as far as possible with similar procedures in other units of the hospital promotes efficiency and economy.

Charity Surgical Care Limited to Emergencies in Toledo

The council of the Toledo Academy of Medicine, Toledo, Ohio, recently adopted a resolution recommending a limitation of staff charity service in Toledo hospitals to acute emergency operative cases during the economic depression, according to the *Journal of the American Medical Association*. The matter was referred to the academy's hospital relations committee, which endorsed the council's policy and recommended that any physician who did not adhere to the spirit of the decision be requested to resign from the academy.

The eye, ear, nose and throat section of the society almost unanimously signed a pledge to do no more "routine" but only emergency surgery in the hospital clinics.

It's the Wound Not the Room That Needs Careful Lighting

By A. T. BAZIN, M.D.*

Surgeon, Montreal General Hospital, Montreal, Canada

A STUDY of operating room lighting is beset with many difficulties. Scientific measurements and optical data must be evaluated to a considerable extent in the light of the practical experience of surgeons in the past. Continued experience in the future will, in large measure, guide the choice and development of systems of lighting.

The necessary and sufficient requisites for good vision may be stated thus:

1. Adequate illumination of the immediate field of the surgical work which the surgeon has in hand.
2. Sufficient illumination of surroundings.
3. Absence of glare, direct or reflected.
4. Sufficient diffusion to avoid dense shadows.
5. Color value of the light.

While adequate illumination is desired, excessive intrinsic brightness and consequent glare are to be avoided. Vision is not good in the direct rays of the sun and cloud detail is more clearly defined when viewed through sun glasses. This is probably because the retina becomes fatigued from overstimulation and the field is limited because of the contracted pupil.

The two factors most immediately concerned in discrimination of detail are contrast of the various parts of the field and intensity of illumination. Normal vision is arbitrarily assumed to be the ability to distinguish an object subtending one degree of arc under an illumination of 10 foot candles with a contrast factor of 100 per cent. It is not practicable to secure a contrast factor of

The high cost of medical care is due in no small degree to luxuries in operating room equipment, says this illuminating report on operating room illumination. The operating suite is the surgeon's workroom, not the architect's and engineer's showroom, the report points out. It recommends that expensive daylight installations be discarded

100 per cent but black ink on good white paper may reach 80 per cent or more.

Contrast and illumination intensity are complementary, so if the contrast factor is reduced the illumination must be increased. Since the contrast factor in the immediate field of a surgical operation is low, a high intensity of illumination is absolutely essential for the best results.

But this may produce glare, if care is not taken. The elimination of glare is perhaps the most trouble-

some of all the problems that confront the lighting specialist. It may be defined as any excessive light entering the eye in such a way as to interfere with vision. The chief causes of glare are: excessive intrinsic brightness of any area in the field, violent contrasts, specular reflection. The best preventive is thorough diffusion.

Good surface illumination can be obtained with a wide variety of installations, but the illumination of a depth, or cavity, requires the projection of light rays along definite paths of concentration. Certain factors conducive to good surface illumination, may hamper cavity illumination, for it is common surgical experience that good visibility of a cavity is not obtained if the surface surrounding the cavity is subjected to too intense or glaring illumination.

In considering examples of this observation, one recalls that a completely darkened room is utilized to good advantage in the examination of the narrowest and deepest cavities, as in bronchoscopy, in esophagoscopy, in retinal work, in proctoscopy. Here all extraneous vision is eliminated, if possible. However, in general surgical work such extreme contrast is not desirable and the surroundings should be comfortably lighted to avoid violent con-

*Doctor Bazin is chairman of the committee on operating theater lighting of the Canadian Hospital Council, and this article is taken from the committee's preliminary report. Other members are Prof. G. R. Anderson, University of Toronto; Prof. H. E. Reilley, McGill University; B. Evan Perry, architect, Toronto, and G. Harvey Agnew, secretary of the department of hospital service, Canadian Medical Association, Toronto.

trast and consequent pupillary reaction when the eyes are momentarily averted and returned. It is necessary also that assistants and nurses have plenty of light so as to perform their tasks quickly and accurately.

Therefore in general surgical work the problem seems to be largely that of providing adequate surface illumination, sufficiently diffused to prevent glare, and at the same time focusing sufficient converging rays into the depth of the natural or surgical body cavity effectively to illuminate it to its depths and to prevent such cavity illumination from being negated by an overintense surface illumination. The surgeon requires a well lighted wound, not a well lighted room.

Human Eye Is Accustomed to Daylight

Visibility, even of surfaces, is attained to better advantage if all the light source is behind the observer rather than if some portion of the light source is shining directly or is reflected into the observer's eyes.

Visibility depends also upon the eyes of the surgeon. Young surgeons with acute vision will require less illumination than will the average older surgeon; also the pupils of some surgeons react to varying light intensities less quickly than do those of others. Any installation should consider and meet the needs of such surgeons.

The quality of light, even of daylight, varies considerably. The human eye has reached its present stage of development under average daylight conditions and consequently the nearer any artificial standard approaches daylight in its spectral distribution the better it will be adapted to vision.

Ordinary artificial lighting has a preponderance of red and a deficiency of blue resulting in color distortion. Only under daylight condition or its equivalent do colors appear in their relative luminosity. In all industrial work where color discrimination is required, white light is considered essential and is invariably used. In surgical work the quality of most artificial lights is found quite satisfactory.

A mixture of quality tends to lower visibility as is common experience in the attempt to utilize daylight with yellow artificial light, unless the intensity of the latter quite overwhelms the former. Theoretically the only effect should be a lowering of the color perception due to the added red, but practically the mixture of lights if equally intense or nearly so is often quite confusing to the surgeon.

Light and heat are more or less indissolubly related. In most artificial sources, the output of light is under 10 per cent of the total input of energy, which appears mostly as heat. To a cer-

tain extent only can the heat rays be neutralized or filtered. In the case of a high level lighting installation, it is best to dispose of the heat by conducting it out of the room. Probably the simplest method of accomplishing this is to have the lights installed in a separate chamber where the heat can be carried off by adequate ventilation.

In deciding upon a plan for an operating room one must also take into consideration other vital factors, for example, the necessity of a pleasing nonirritating appearance of the ensemble for the psychic effect upon the patient under local anesthetic, and, of considerable importance, the cost of the installation. In regard to this latter point, the installation should be sufficient for the job, though not necessarily the most expensive or technically perfect.

Keeping in mind the foregoing rules regarding contrasts and glare, it is evident that the dazzling white drapes over the patient and the white gowns on the operator and his assistants might well be replaced by a fabric of a light absorbing rather than a light reflecting color. Dark blue, dark red, even black have all been used. To recommend such colors might seem radical, but in all probability a neutral gray would be satisfactory and would not prove a shock to the sensibilities of the conscious patient.

The walls of the room, at least as far up from the floor as the operator's level vision, should be also of some neutral tint such as blue gray or green gray. Yellowish greens or intense blues should not be used. Furthermore, it is not essential for proper cleansing that the surface should be a shining glaze; a dull finish can be as easily cleansed and is much easier on the eyes. Above this level, the walls, as also the ceiling, may be of a white reflecting surface, as this will aid in general room illumination from a comparatively low power light source.

Skylights Are an Abomination

As the surgeon's line of vision rarely if ever reaches the floor, its color and composition need not be considered in this regard, important though these factors are from the viewpoint of cleanliness, durability and foot comfort.

A sufficiency of clear daylight, without direct rays of the sun, and coming from the proper direction, is a satisfactory surface illumination, and with concentration, by use of mirrors or other device, may also illumine the depths of a cavity. There is no glare and the quality is good. But to obtain this is difficult.

Skylights are an abomination. They leak and they gather dirt and smudge. Vertical windows of large size give lateral rays only. The portion be-

low the level of the table serves no useful lighting purpose and the lower inner panes frequently placed before the radiators often become cracked. The upper portion alone is available for light and must be carried high and the light must be reflected downward from the ceiling to illumine any depth of cavity. Vertical windows with a curved or inclined upper portion to get a half skylight effect combine the evils of both skylight and vertical windows.

Proper Daylight Windows Are Costly

The glass should be clear, unless privacy is essential, but some means must be employed to screen the window during night operations. A frosted glass excludes too much light; a "crinkly" glass diffuses it too much. In northern climates the patient must be protected from the cold air that falls from the high window. In this connection a double glazed window permanently set in the same sash should be avoided, because of the great difficulty of preventing streaking of the dust on the proximal surfaces due to condensation. All double or triple glazing should be easily separated for cleaning purposes.

Proper daylight windows are costly to install and to maintain. They are serviceable only under the best conditions of daylight and they are useless on cloudy days particularly in the autumn and winter or at night.

Therefore, efficient artificial light installations are essential. Why not avoid the cost of elaborate daylight installations and put the money into the artificial lighting?

Recently, as the chairman of the committee that made this study, I was privileged to attend the opening of a large operating pavilion in a Canadian city. Four operating rooms were in use. In all there was a double plate glass installation with heating unit between, occupying most of the north wall of each large room. The weather conditions were ideal—a clear bright forenoon—but in each of the rooms a \$400 artificial installation was in full blaze and, in addition, in two of the rooms the operators required a portable floor lamp for lateral illumination. This is surely an indictment of expensive daylight installations.

The concrete suggestion is that the operating room windows should be of ordinary size, to be utilized for extra ventilation if required and for lighting during cleansing and preparation of the room, and that they should be provided with screens or shutters to be closed when the operation is to commence, the artificial installation then to be solely depended upon. The blind or screen should be built into the window frames so as to shut out the daylight completely when desired.

The types available vary in cost from a few dollars to many hundreds of dollars. In a general way they are divisible into five classes. These are: (1) multiple ceiling installations in a single frame recessed and ventilated; (2) multiple individual ceiling units; (3) overhead single light fixtures; (4) a single unit suspension with multiple lights, and (5) a simple type where expense is a factor.

In multiple ceiling installations in a single frame recessed and ventilated to carry off heat generated, the lamps vary in number up to twenty-four (100 watt); therefore the maintenance cost is high where rates are high.

In one of these types the glass in the frame is cut into lenses with a view to concentrating the light rays on one or more portions of the operating table. Directional illumination and considerable economy are possible by turning on portions of the installation only. In another type a concave reflector is placed behind each lamp to direct the rays to the operating field. But the glass in the frame is not a concentrating lens but is "crinkly" for the purpose of diffusing the light and lessening glare. Surely two opposites in the physics of illumination. In both there are so many sources of light that a comparatively shadowless field is obtained, provided the interfering object is placed not immediately above and too close to the field to be illuminated.

A study of the illumination provided by one of the best of this class of light illuminations (installed at the Toronto Hospital for Consumptives) by a member of this committee revealed that despite a ceiling height of 16 feet the illumination at the field of operation was 640 foot candles, at the patient's head 175 foot candles, on the instrument shelves 16 foot candles, and in the darkest corner on the floor 8 foot candles. This is adequate general illumination.

Installations That Have Proved Satisfactory

In these and other types of ceiling fixture there is no possibility of dislodged dust settling on the operating field when disturbed by adjustment or jar. This is probably a much exaggerated source of possible infection.

Many installations of the second class, multiple individual ceiling units, recessed or pendant, and arranged in circle, oval or rectangle with lens face or reflector shade directing the rays to the operating field, proved quite satisfactory and if properly placed can give less shadow than many of the single fixture shadowless fixtures, as a result of the greater obliquity of the converging rays.

One possible defect noticed in this type of multiple unit lighting, particularly if placed far out on the ceiling or high on the lateral walls to gain

greater obliquity, has been the possibility of glare in the eyes of those passing about the room. This has been overcome in a new and inexpensive light unit installed in a recently constructed eastern hospital by means of a simple grid screen utilizing the principle of the Bucky diaphragm.

Actual tests indicate that the illumination on the operating table varies from 40 to 50 foot candles. The intensity can be varied according to the wattage utilized. From observation and communication it is learned that when installations of Classes 1 and 2 are in use, a portable pedestal lamp is usually employed to obtain strong lateral illumination.

For purposes of economy, room illumination at other than operating times should be obtained by separate installation on independent switch or control.

Too Much Stress Placed on Shadowless Feature

In the third class, overhead single light fixtures, are grouped all of those models of fixtures that hang above the table and that, by means of various types of reflector surfaces, concentrate the rays of a single lamp upon the operating field. One single source of light (100 to 200 watts) is employed, but because of the diameter of the fixture and the distance between the reflector surfaces (as well as because of a screen or lens directly below the bulb) all the rays proceed obliquely to the field and thus a comparatively shadowless light is obtained.

In the high pressure salesmanship to which we are subjected too much stress is placed upon this shadowless feature. The surgeon's head is, or should be, sufficiently far from the field to permit enough of the ordinary overhead rays to pass it. Certainly if the surgeon's hands were constantly held in the attitude of a begging poodle dog a foot from the operating field they would cast no shadow. But the surgeon's hands must be in, or in close proximity to, the wound and must of necessity cast a shadow. This can be observed with any so-called shadowless light. The surgeon must depend upon his dexterity to avoid any evil consequences of the really unavoidable shadow.

Moreover, shadowless illumination of a field having three dimensions is neither practical nor desirable. It is by virtue of variations in the lighting of an object that we gain a knowledge of its contour. The shadow in any field of operation should not, however, be so dense that detail is lacking. The smaller the source of light the denser will be the shadows, but with well diffused light from a large area the shadows are soft and transparent and maximum visibility is thereby secured.

The fixtures in this group have a variety of

methods of suspension, but all admit of tilting to a greater or less degree to provide oblique or lateral illumination. Moreover, all admit of adjustment to procure oblique illumination in any direction. True transverse illumination is not possible with any. The suspension may be mounted on a rail or track to permit the adjustment of the light to a position over the field, thus avoiding the moving of the operating table.

The danger of dust is present in all fixtures of this type—in some more so than in others. However, as previously stated, this danger in any well cared for operating room is much exaggerated.

The heat factor is present in all—to a greater or less degree. But heat cannot be eliminated altogether from this type of lighting if intense light be desired.

The glare fault can be eliminated from all by interposing at some point in the fixture a colored glass screen.

General room illumination is provided either as a part of the fixture (ceiling cluster at point of suspension) or by a separate ceiling installation on an independent switch control. The cost of fixtures in Class 3 varies from \$250 to \$500.

In the fourth class, the single unit suspension with multiple lights, the lighting provides a convergence of oblique rays upon the operating field as do those fixtures in Class 3; but because of the fact that multiple light units are utilized, it is considered separately. This type of fixture has been in use for many years and consists as a rule of a rigid circular or rectangular frame suspended above the field of operation upon which are placed a series of lights, each with its own reflector. In one type, all lights are in an inverted reflecting trough.

This installation is comparatively inexpensive to install and gives good illumination, but it has three drawbacks: it throws an intense heat directly over the operators' heads; it is usually rigid, and it fails to light the room properly.

An Inexpensive Type of Fixture

The fifth fixture is a simple type for use when expense is a factor. Many smaller hospitals do considerable surgery and require good surgical illumination, yet find themselves financially unable to install anything but the cheapest of lighting systems. For them the following suggestions are made:

a. A hanging lamp with a dome shaped, white enamel reflector of about 20 inches diameter. This provides direct illumination from a 150 to 300-watt nitrogen filled bulb. A plate glass screen, 21 inches in diameter, suspended 3 inches below the rim of the reflector cuts off much of the direct

heat. The suspension is by brass chain and the screen is fixed 6½ feet from the floor.

This type of lighting affords excellent illumination with fair diffusion, but permits of no adjustment, is not shadowless, and possesses the faults of dust danger and heat. It has not the advantage of architectural beauty or of mechanical novelty. But under it, in one of our busiest hospitals, satisfactory work has been carried on for years. Its cost is approximately \$25.

If desired, two of these lights can be utilized. These should be placed over the table parallel to its axis. Or one of these lights combined with a moderately priced pedestal light makes an excellent substitute for a more expensive system.

b. General room illumination both during operation and at other times is obtained by an installation of ordinary ceiling drop lights operated by an independent switch control.

c. A portable floor lamp for oblique or lateral illumination of deep cavities.

A portable lamp has a distinct place in the equipment of all operating rooms and with some types of overhead illumination is absolutely essential for good oblique or cavity illumination. Pedestal lamps should be freely adjustable as to height and obliquity. They should throw a powerful beam a distance of at least 5 feet so that they may be placed well back of the operator and not hamper his movements or bother him with their heat.

Various types of portable lamps are available but it is the part of wisdom, if finances permit, to purchase a model that combines in its base a storage battery for emergency illumination. For small hospitals an inexpensive emergency light

can be obtained with an ordinary 6-volt automobile battery, which can be mounted on a wheeled base with a vertical shaft upon which can be clamped a spotlight reflector. The bulb should be a 32-candle headlight lamp and the light should be on a ball and socket joint. Different bulbs are required for the ordinary current and the battery current.

Perineal or vulvar operating fields are best illuminated by low almost horizontal rays. A portable light is satisfactory, as is also a vertical window. An excellent arrangement is that of two portable lights, placed behind each shoulder of the operator and converging upon the field.

The otolaryngologist uses for the most part a small spotlight (head band) or reflected light from a head mirror reflected from a floor lamp with a bull's-eye—and in a darkened room. Another portable lamp with a shaded bulb is desirable to light the nurse's table.

The special instruments for illumination in bronchoscopy, esophagoscopy, cystoscopy and proctoscopy are not within the scope of this report.

In operating room lighting the practical experience of surgeons must outweigh scientific data of illuminating power only, as illumination and visibility do not always parallel each other.

An installation of low cost that gives practical satisfaction should be the choice no matter what the financial resources of the hospital may be. The high cost of medical care is attributable largely to luxuries in operating room equipment.

Expensive daylight installations should be discarded. The operating suite is the workroom of the surgeon. It should not be considered a show-room of architectural and engineering endeavor.

Mental Hospitals Need More and Better Men Nurses

Men patients in many mental hospitals are being inadequately cared for because they lack the skilled attention of intelligent virile men nurses. This is the belief expressed by Dr. Daniel H. Fuller, chief of the out-patient service of the Pennsylvania Hospital for Mental and Nervous Diseases and chairman of the committee on nursing of the American Psychiatric Association.

Patients in public mental hospitals are about equally divided as to sex, Doctor Fuller points out. The care of men patients falls largely to the lot of attendants and a comparatively small group of men nurses.

Not depreciating the value of the right type of woman nurse with individual men patients or the fine effect on morale in a men's ward exercised by her presence, yet this psychiatrist believes that the mental nursing of men patients is a man's work.

"Although in general hospitals nursing has always been

the prerogative of the woman, in the mental hospital the problem is different," Doctor Fuller writes in *Mental Hygiene* for January. "Obviously there are those among men patients whose care cannot be undertaken by a woman nurse, those whose mental illness is aggravated rather than helped by her personal services."

No effeminate type of man nurse will fill the need, in Doctor Fuller's opinion. The male patient responds more readily to one who understands a man's point of view, who can enter into his interests and appreciate a masculine type of reaction. Psychiatric nursing requires a man of good background with an education in a hospital for mental diseases.

"The unquestioned benefits to mental hospitals from the training of women nurses is evidence of what may be expected from the training of men nurses," asserts Doctor Fuller. "No lower standards, no less rigid selection, no less thorough weeding out of pupils who show themselves not adaptable to the work, no less dignity of status in the nursing field should be sought for and attained in the education of men nurses than in that of women nurses."

Someone Has Asked—

What Incisions Should Be Permitted in Performing a Necropsy?

One of the chief difficulties in maintaining a high necropsy percentage is the opposition of undertakers. Frequently the objections put forth by members of this group are wholly reasonable and justified. Hospitals have long been too autocratic in their dealings with undertakers. The postmortem examination is too often carelessly and clumsily done and no effort is made to spare the embalmer's time and to favor the performance of an acceptable piece of work.

The hospital should definitely stipulate that the only incision permitted shall be one beginning below the suprasternal notch and extending to the os pubis; that all large arteries and veins that are severed shall be tied, and that the right innominate, the left carotid and the left subclavian artery, and both innominate veins in the neck shall be left long and ligatures with long ends left attached thereto. If a brain examination is to be done, the incision should be begun posteriorly and every effort should be made to avoid mutilation of the scalp.

The hospital should remember that the family of the deceased expects the embalmer to perform skillful work and that if common sense precautions are taken by the pathologist, the embalmer will have much less difficulty in pleasing his patrons. Fair play and a little extra expense and work on the part of the hospital can eliminate largely the opposition of morticians to postmortem examinations.

Should Hospital Accounts Be Kept on a Cash or on an Accrual Basis?

It is difficult to explain the slipshod methods that exist in the hospital bookkeeping system. When one endeavors to learn the value of free work rendered, he often discovers that only the amount of cash collected for services has been computed and that no account has been kept of charges for hospital services and of income on an accrual basis. Such a difficulty is usually due to an inadequate receipt system for cash received.

It is a matter of basic importance to issue receipts for cash taken in and to

keep duplicates thereof. The sum total of the amounts of these duplicates should equal the cash turned in. To fail to record accurately the total amount owed as compared with the amount paid is inexcusable. It is most difficult, unless this is done, to make any worth while audit of cash transactions since it is impossible to determine whether the amount entered was the amount actually received.

A proper system of cash control should enable each transaction to be checked. Each day's receipts from various hospital departments should be deposited at the end of the daily period. It is just as important to make a careful record of the checks received by mail or received at the cashier's desk. Unless a daily check list and cash received list are made up it is impossible for careful and accurate cash audits to be made at any time.

To Whom Should the Dietitian Answer?

If food could be definitely classed either as a necessity for sustaining life or as a real medicament, the foregoing question could be more readily answered.

In many hospitals the dietitian has a multiplicity of superior officers. She is responsible to a lay superintendent for economy in the purchase and handling of foods. She is responsible to the medical administrative officer or to the visiting staff for the proper preparation and serving of this food, or she may be definitely responsible to no one.

More and more is food coming to be looked upon, so far as the hospital stay of the patient is concerned, as a therapeutic agent. This is particularly true because of our advancing knowledge concerning metabolism and the generation and elimination of body toxins depending on food intake. There is, therefore, a decidedly greater medical importance laid to hospital food than to hotel food. Hence it is believed by many that a physician should have rather direct control of the activities

of the dietitian. She should be more often found with him at the bedside of the patient.

If there is a well trained medical officer in charge of the hospital, both the economic and therapeutic administrative angles of handling food can be well covered. The dietitian cannot be divorced from the medical administrator of the hospital. It appears best for her activities to be supervised by such an officer and for the economic lines of authority to proceed through rather than around this person.

Should the Bids of Others Be Shown to Dealers in Hospital Supplies?

It is becoming more and more the custom for hospital supplies to be purchased only after opportunity has been given to a number of dealers to submit bids. This is particularly true in regard to such standard articles as drugs, hospital supplies and even sterilizers, furniture and other equipment. A surgical house complains that its bid, made in good faith, was shown to a competitor and that the latter by altering his previous figures unfairly secured the business.

Ethics in business as in the conduct of professional work simply means the exhibition of fair play each to the other. If, after dealers have been shown specifications and samples and have honestly submitted a bid, their estimates are not considered confidential, a basic ethical principle is violated by the hospital administrator. A beneficial end is not justified by a questionable means, and even though the hospital could save a paltry sum by an unethical practice there is no excuse for such business dishonesty on the part of an officer of the institution.

Because of the present depression and the unreasoning panic incident to these changes, consciences have too often become warped and judgment has become distorted.

A solicitation for a rebate on the basis of an implied threat that patronage will be withdrawn is another method adopted by some hospital executives. This practice needs only to be mentioned to be severely condemned. If an institution must stoop to dishonest methods to exist, it would be better that its doors be promptly closed.

If you have any questions to ask, the editor will be glad to discuss these in a forthcoming issue

The Proper Set-Up for a Nose and Throat Department*

Twenty per cent of all clinic patients come for treatment in the otolaryngologic department. When one considers the frequency of such ailments as the common cold, tonsillitis, deviated septums, sinus diseases, otitis and their complications, the importance of this service becomes obvious. Doctor Keller and Doctor Goldstein give a comprehensive plan of organization for this department

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PROPER organization of a department of otolaryngology has received but scant attention in hospital literature. The problem is a highly complex one, embodying as it does, differences due to the various physical capacities of hospitals, financial status, size of community, degree of specialization reached, and presence or absence of a teaching function. Each hospital has been a law unto itself, with almost as many plans of organization as there are institutions.

It is the purpose of this paper to define the status of the otolaryngologic department in a general hospital and to attempt to clarify its proper organization, both from the medical and administrative viewpoints.

Immediately, one is faced with the problem of the division of the out-patient and in-patient service. In this country we have stressed the in-patient organization, neglecting somewhat the importance of an out-patient clinic in hospital planning. One is fully as important as the other. It is essential to remember that out-patient organiza-

tion more closely parallels the physician's own practice. We shall first stress the out-patient organization in a general hospital, more or less following the plan used at the Newark Beth Israel Hospital, Newark, N. J., with changes in the accepted routine to approach the ideal.

Location and arrangement of the ear, nose and throat clinic and the space allotted to it are important. There should be a waiting room, a room for the social service worker and clerk, several examining rooms, an operating room, a dark room and a laboratory. Equipment should be simple, practical and complete enough to do the most efficient work. An audiometer should be available, if possible, for this is a valuable adjunct in the examination of school children for hearing defects. To do the most efficient work, a complete set of ear, nose and throat instruments is essential.

The out-patient staff of the ear, nose and throat department may be identical and coordinated with the in-patient staff or may be a separate nose and throat staff independent of the hospital division. In either case, there are three fundamental types of staff organization: (1) one department of otolaryngology and bronchoscopy; (2) individual departments, such as otology, laryngology including nose and throat, and endoscopy, and (3) two or more services of (1) and (2).

In a survey of the larger hospitals in the eastern part of the country, the following information was ascertained:

In over 90 per cent of the institutions, there is but one otolaryngologic service, with uniform designation of the men on the staff; all operate under the chief of service plan. The designation in the majority of instances consists of chief of staff, associates, adjuncts, assistants and clinical assistants. In practically every hospital from which information was obtained, all the physicians on the nose and throat staff are bona fide specialists in

*This article is one of the Hospital and the Medical Staff series, designed to ensure better team work in the hospital through a fuller understanding of the interrelated problems of the medical staff and the administration. The first article of the series appeared in January, 1933.

this field. In a few instances, the clinical assistants in the out-patient department were general practitioners who were interested in obtaining training in this specialty. In 95 per cent of the hospitals, there are similar coordinated in-patient and out-patient otolaryngologic staffs.

An analysis of this information concludes that the most workable and efficient staff organization in hospitals of moderate size should consist of one otolaryngologic service, carrying on both the work in the out-patient and in-patient departments, under the supervision of one chief of staff and his own appointed assistants, all of whom are bona fide and qualified ear, nose and throat specialists.

The Ideal Arrangement

Pointing to one of the causes of ear, nose and throat clinic failure, Shambaugh says, "The organization of the out-patient work has often been that only younger, less experienced men are available for this work, whereas the more experienced physicians restrict their work to hospital cases and are permitted to care for the patients referred to the hospital, thus depriving those responsible for the routine work in the dispensary of the opportunity of following the care of the more interesting patients."

The ideal arrangement would be, then, to have an identical and correlated in-patient and out-patient staff. In those clinics in which the men lose contact with the patients referred to the hospital, there is poor esprit de corps; the men are discouraged, and there is a continual struggle to obtain competent clinic physicians.

Ideally, only men approved by the American Board of Otolaryngology should constitute the staff. However, the perfect requirements of many hospitals must be combined with the practical, for the happiest results.

The department of ear, nose and throat should consist of physicians in the following categories: (1) physicians approved by the American Board of Otolaryngology; (2) physicians who have a year's postgraduate work in nose and throat specialty in an accredited postgraduate school; (3) physicians who have had two years' residency in an approved hospital, and (4) those general practitioners who show an interest in ear, nose and throat work and who wish proper preparation for the practice of this specialty. They may be used in the clinic as clinical assistants.

The head of the department should be appointed by the medical board with the approval of the board of directors for a term of one year. He, in turn, nominates the remainder of the staff. The chief of service is thus given full powers, carrying the major responsibility of the entire service and

receiving the privilege of selecting his own associates. The chief of the service may at the end of the year be removed from office by simple non-reappointment. But, as Doctor Brennemann states, "The aim throughout is to make all tenure of position as permanent as is consistent with continued efficiency." The chief of the department should be a member of the senior medical board, under the supervision of the chief of staff or of the medical director.

The number of men on the staff, of course, depends on the number of patients treated in the clinic. The optimum ratio is one physician for ten clinic patients. The census of the clinic would determine the number of days allotted to this work. In fairly large clinics, at least four days should be devoted to clinic work each week. The staff should not be forced to attend daily clinics but there should be at least two groups, each attending two days per week.

The schedule of the out-patient clinic should be so arranged that during the summer each physician may be permitted one month's vacation.

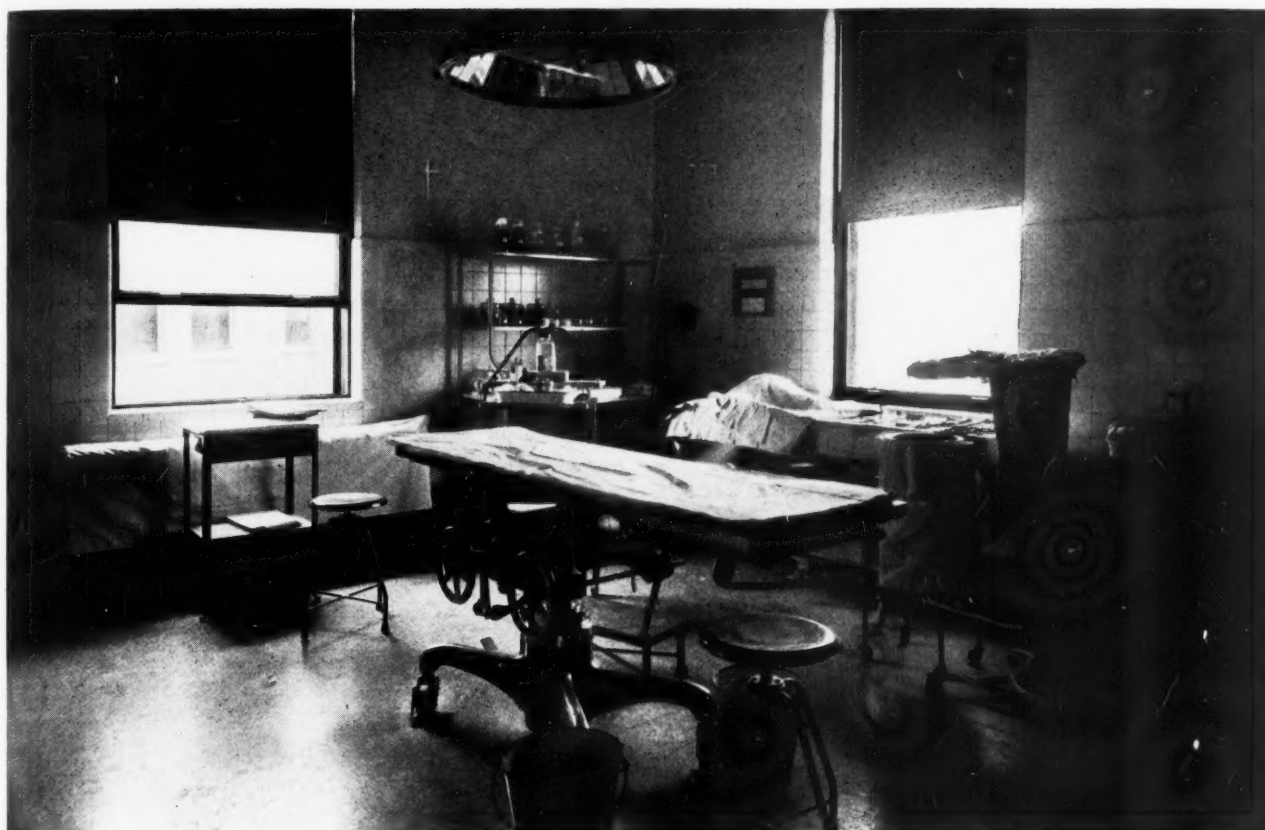
Clinic Chief Should Examine Each Record

The clinic should be equipped to do efficient, thorough ear, nose and throat work on ambulatory patients. Once a patient is admitted to a clinic he should receive the following routine examination.

A careful history should be compiled by the younger physician, which may be dictated to a secretary or voluntary worker. The patient should receive a careful examination of the ear, nose and throat, including transillumination of the sinuses, examination of the sinuses by anterior and posterior rhinoscopy, and a complete test of hearing with tuning forks and audiometer. The vestibule should be examined using both the caloric and turning reaction. A careful description should be placed on the record, with the diagnosis, treatment performed and recommendations. At each subsequent visit a careful progress note should be made. The chief of the clinic should go over the record and, if an unusual case appears, he should discuss it with the staff for instructive purposes.

The question soon arises as to whether operative procedures should be performed in the clinic. Of course, the usual minor procedures, such as polypectomies, myringotomies, incision and drainage of abscesses, cauterization of septums, sinus lavage and removal of foreign bodies from ear and nose, may be done in the clinic, as these patients do not require bed care.

Removal of tonsils and adenoids is the more important problem. Otolaryngologists and hospital administrators are of a divided opinion on this



An operating room in the general surgical suite is reserved exclusively for ear, nose and throat patients.

subject. At the 1929 meeting of the British Medical Association, a resolution was passed condemning tonsillectomies and adenoidectomies in the out-patient department and advocating a period in the hospital after the performance of such operations of at least forty-eight hours. There is much to be said in favor of both methods.

Dr. J. Arnold Jones in a comprehensive review of the problem quotes the figures given in the accompanying table.

It will be observed that the percentage of total morbidity is higher among the in-patients than the out-patients and that the serious morbidity is three times greater among the in-patients. However, other statistics reveal the opposite. It is the consensus among most of the ear, nose and throat specialists that tonsillectomies and adenoidectomies should be performed in the hospital proper, and patients should be hospitalized for at least from twenty-four to forty-eight hours. If performed in the out-patient department, Doctor Jones insists upon the following precautions:

1. Cases should consist of children.
2. All children should be given a thorough general examination by the pediatric service, prior to operation.
3. Patients should live in the neighborhood.
4. Coagulation time, bleeding time and urine should be normal.

5. Patients should remain from four to five hours in a recovery room and then should be removed to their homes by ambulance.

Similar precautions should be followed in the case of in-patients, whether for nose operations or for the removal of tonsils and adenoids. Adults, however, should receive a thorough examination by medical men. All tonsillectomies for adults, if possible, should be done under local anesthesia. Preliminary examinations should be done in the clinic to reduce the period of hospitalization.

The question has come up repeatedly of the feasibility of x-raying the thymus gland for diagno-

**TONSIL AND ADENOID OPERATIONS AND MORBIDITY
AMONG IN-PATIENTS AND OUT-PATIENTS**

	179 In-Patients August, 1929-30		914 Out-Patients August, 1929-30	
	Number	Per Cent	Number	Per Cent
Definite Morbidity	0	0	7	0.7
Serious Morbidity	3	1.6	5	0.5
Mortality	0	0	0	0
Total Morbidity	3	1.6	12	1.2

sis and treatment in order to prevent so-called thymic tragedies. It is the consensus here also, that roentgen treatment of the enlarged thymus, if found, is unjustifiable. Campbell summarized the problem well. He feels that the enlarged thymus is only a symptom of status thymolymphati-

cus as is also the hypertrophied lymphoid tissue elsewhere in the body, and it seems, therefore, no more rational to apply roentgen ray therapy to the thymus than it would be to treat enlarged lymphatic glands.

Physicians in the out-patient department see even more material for purposes of instruction than in the in-patient. A clinic is an ideal method for instructing the younger ear, nose and throat physicians and for training general practitioners who are attending the clinic for that specific purpose. This is even more important in the general hospital not connected with a teaching institution.

In many hospitals there has been a woeful neglect of this prime purpose of the clinic with an utter disregard for the advancement of the younger physicians. It is more than a question of teaching the younger men to perform a few minor operations and then throwing them upon an unsuspecting public as ear, nose and throat specialists. The out-patient department should be used to train the younger men in the groundwork of clinical material intimately associated with histology and pathology of the parts before they are allowed to perform any operations. Knowing when and why to operate is more important at this stage than the actual surgical procedures. Too much needless surgery is performed because of the inability to comprehend this fundamental principle of clinic instruction.

An intern or resident should be connected with the clinic as part of the routine training he receives in a general hospital. He should be taught first how to recognize the normal appearances of the nose, how to make ear, nose and throat examinations, what instruments to use, and how to use them. He should learn the simpler treatments and the more common ailments. These are more important to him than either observing operations or performing them. The intern should do little actual surgery except in those hospitals in which he is training in the specialty, and that, only under the same general principles as were enumerated for the staff men. If possible, the intern in the out-patient department should subsequently be placed on duty in the in-patient service.

5 Per Cent of School Children Hear Badly

When the foregoing routine and principles are followed, there will not only be a keen desire of each staff member to maintain high standards of a service, but there will be an added incentive to advance medical knowledge in this field. In this connection, mention should be made of the necessity of discovering impairment of hearing in the school child. It is appalling that nearly 5 per cent of school children have impaired hearing. Much

can be done in the clinic to determine hearing defects in the young and to reduce the incidence of deafness. An audiometer is an aid in this direction.

Auxiliary services associated with the ear, nose and throat clinic are important and aid greatly in its proper organization. Such services include registration, admission, social service, pharmacy, laboratory, library and nursing. The greatest efficiency is obtained when all auxiliary services are under the direction of one permanent head, preferably a person versed in both social service and nursing.

The admission of the patient to the out-patient department is important so that there will be no congestion in the receiving room and so that patients are quickly and quietly referred to the proper clinic. The patient entering the clinic comes at once to the admitting desk. If he is a former patient, he states this fact, pays the fee that has been established in our particular institution at 25 cents, and is sent to the waiting room. The histories are then sent to the clinic by a page. A record is made for each new patient and he is referred to a room near the admitting officer for financial investigation.

Clinic Fee Should Not Exceed 50 Cents

The record form of the clinic should be so devised as to minimize the amount of clerical work for which the physician is responsible. A form approved by the American College of Surgeons for the ear, nose and throat clinic would be suitable. The chart should be so indexed, cross indexed and filed that it may be available at any time for various needs. A central record room might serve the hospital and out-patient department as a single coordinated unit to great advantage, as both the clinic and hospital records would be available in one place. It is understood that on admission of a patient to the hospital the clinic record accompanies the patient and a copy of the hospital chart returns to the clinic with the patient.

The patient is then interviewed by the social service worker to determine his financial eligibility to be treated in the clinic. This is based on accepted standards, taking into consideration the income of the family, the number of children, whether referred by a physician, and the urgency of the case. The usual fee is 25 cents per visit, the ability to pay being gauged by the social worker. Under present economic conditions, any clinic fee in excess of 25 or 50 cents would tend to place the clinic on a competitive basis with private physicians.

Clinics maintained in association with private charitable hospitals should be for indigent patients only, so that the clinic fee based on a very

small amount should avoid attracting patients who would otherwise be treated by their private attending physician. All out-patient department activities should have the cooperation of the organized medical profession, so as to bring about a favorable community relationship. This can be accomplished only when each clinic has an accurate determination as to the financial status of patients admitted. Thus, patients who are worthy and deserving of charity should be accepted for clinic treatment. If, however, the financial status

of patients is not ascertained, volunteers are employed. The ear, nose and throat service may have use for several volunteer workers. They aid in taking dictation from the physician, help with the clerical work in the clinic and may be trained to assist in the taking of histories.

The nursing service is another important factor in the success or failure of the organization. The nursing personnel of the clinic should be in charge of a supervisor who has had previous training with ear, nose and throat patients. Under her supervision there should be enough student nurses to give



A corner of one of the otolaryngologic examining rooms at Newark Beth Israel Hospital.

of a patient is above the standard set for the clinic, the patient should be referred to his own physician.

The social worker is one of the most important of the auxiliary staff. Determination of financial eligibility should be only one of her manifold duties. The social worker should be the liaison officer between the various departments. She helps to correlate the work of the various departments and follows the patient to the home and in innumerable ways aids the physician in doing thorough and efficient work.

Associated with the social service worker, mention may be made of volunteer workers. The volunteer may be of great aid to the overworked social worker, especially when, because of the added expense, too few paid social workers and secre-

adequate assistance. The clinic is another means whereby the student nurse receives instruction in the proper nursing of ear, nose and throat patients. This should be supplemented by instruction, both theoretical and practical, in the fundamentals of this specialty. Prior instruction in the out-patient department may be of invaluable assistance in preparing the student nurse in the care of hospital patients. The number of nurses should, of course, depend upon the census of the clinic. One nurse to every fifteen patients per clinic day would be a proper working arrangement.

The pharmacy is another important unit closely associated with the ear, nose and throat clinic. Many institutions dispense drugs in the clinic building proper. Others have patients fill the pre-

scriptions in outside pharmacies. The hospital pharmacy promotes more active dispensing and saves the patient effort and expense if the medications are dispensed at cost price.

There should be a small laboratory intimately connected with the clinic, preferably as part of the otolaryngologic department. If the clinic is not large enough, there should be a laboratory as part of the general out-patient department. An experienced technician should be in charge under the general supervision of the chief of clinic and the director of the department of laboratories. Here all the routine blood counts, urinalyses and coagulation times are done. Biopsies and major laboratory procedures may be referred to the hospital laboratory. The laboratory should have on hand gross preparations of nasal cavities, temple bones and a series of microscopic preparations showing the normal histology of the ear, nose and throat service and also a series of slides showing various pathologic processes. The laboratory and its facilities should at all times be open to the staff, constituting as it does one of the most important means of improving the knowledge and standard of the work performed.

Relation to Other Services

The department of otolaryngology adds its special diagnostic possibilities to the study of the body as a whole. In this connection it occupies an important niche in hospital organization. In many institutions it handles as high as 25 per cent of the total number of patients visiting the entire out-patient department. Interconsultation and discussion of the case should be encouraged. Every medical case with any otolaryngologic complaints should be sent to the ear, nose and throat clinic for consultation. Nearly all the other specialties are in close contact with the ear, nose and throat clinic, and in some cases overlap, especially the allergic, neurologic, ophthalmologic and medical clinics. In seeking for foci of infection, the otolaryngologic clinic has divisions extending into every other department.

Use should be made freely of consultation with other clinics. In all obscure cases, consultation is important and should be sought to the limit of hospital resources. The x-ray department should be open to the staff in assisting to clear some puzzling cases. Interconsultation should be freely granted and received. Clinics should be arranged to promote discussion of the unusual cases of the out-patient department among the various services.

We have taken the patient through the clinic and attempted to show the ideal organization. He is now ready to be admitted to the in-patient service. Here, as in the out-patient department, com-

plete organization is necessary to provide the best possible service to the patient.

The structural and instrumental equipment of the in-patient service is as important as that of the out-patient department, since all major work is performed in the hospital. The hospital should provide a special floor or unit for the treatment and care of the ear, nose and throat patient. Here, a subdivision should be made, the arrangement to take care of ward and private cases.

The entire ward unit should be self-sufficient with its own operating unit and ward beds. The custom of having the ward beds scattered throughout the hospital causes a marked reduplication of labor, both on the part of the medical staff and the administration. The department should be as compact as possible, and easily accessible. The number of beds comprising the ward service depends on the size of the institution. As a rule at least from 7 per cent to 10 per cent of the ward beds should be given over to the ear, nose and throat service and should be used only for these patients. Without such a provision the physician in the clinic will never be sure that an interesting case can be hospitalized. Furthermore, the assignment of a definite number of beds for its own use materially aids in giving the service a feeling of dignity and essential importance, which tends to improve loyalty to the institution.

In close proximity to the ward there should also be a room suitable for otolaryngologic examinations and treatment. Full equipment to perform any otolaryngologic procedure in the operating room where all the ward work is to be performed is presupposed. All the equipment enumerated in the out-patient department plus all additional necessary medical and surgical supplies and instruments should be on hand.

Treatment of Private Patients

Likewise, there should be a definite unit set aside for the treatment and care of private otolaryngologic patients. The private room should take in a corridor or a floor of the private pavilion. The number of beds set aside for the private nose and throat service, of course, depends upon the size of the institution and need not necessarily be limited. In a small hospital, a private unit may consist of only a few beds while in a larger institution a whole floor may be necessary. In the case of children, those hospitals that have a separate pediatric unit may make provision there for the hospitalization of ward and private ear and nose cases. Also associated with the unit as in the case of ward service, there should be a room set up for otolaryngologic treatments and examinations.

In both the ward and private examining rooms

there should be on hand at all times a completely equipped emergency set to handle hemorrhages and tracheotomies.

An operating room in the general surgical suite should be reserved exclusively for operative procedures for nose and throat patients. Equipment should be as complete as is compatible with thoroughly efficient surgery. The chief of the nose and throat service will requisition such instruments as are needed for this purpose and, what is more important, his request should receive prompt attention.

Every general hospital should have a department of endoscopy for the performance of laryngologic examinations, treatments, bronchoscopy and esophagoscopy. The department may be under the general charge of a separate staff devoted exclusively to this specialty or may be under the chief of the nose and throat service; in the latter instance men with proper training should be assigned to this service. There are no half-way measures in the conduct of this department. It must be fully equipped to handle any emergency arising before, during or after any esophagoscopy or bronchoscopy.

No Physician Should Be Overburdened

A separate room in the operating suite should be set aside for this work, under the charge of nurses with adequate training in this specialty. The hospital should maintain an out-patient clinic of endoscopy. Cases for the more advanced studies of the larynx and also ambulatory cases requiring future bronchoscopy or esophagoscopy should be referred to this clinic. However, actual endoscopy procedures should be performed in the in-patient operating room assigned to this work.

The fundamentals of staff organization have already been discussed under the section of the out-patient department. Under ideal conditions the same staff serving in the clinic should attend in-patients as well. No physician in the clinic should be so overburdened as to feel that his work is a drudgery or that his purpose is to act merely as a feeder to the in-patient staff. Patients sent to the hospital through the clinic should be followed up during their institutional stay by the physicians who first examined them in the out-patient department.

Discussion of the nature of the staff, whether separately set up for otology and laryngology or fused as a single unit, applies with equal force to the hospital service. General qualifications should be the same as for the clinic. Special consideration, however, must be given to the operating room privileges. It goes without saying that the operating room should not be thrown open to every

physician who considers himself more or less competent to perform nose and throat operations. The medical director should discourage the general staff from performing those operations that rightfully belong to the nose and throat division. Within the nose and throat staff itself only those men who have demonstrated their surgical ability and basic training should be permitted to perform major otolaryngologic procedures. The operating room should be the last step in a course of instruction to the younger men.

The chief, together with the staff, should make daily rounds, discussing each case, suggesting diagnosis and treatment. All ward patients, there-



Waiting room in the clinic for ear, nose and throat patients at Newark Beth Israel Hospital.

fore, are seen by all members of the staff on the service at that time. The chief should also appear at each session of the nose and throat clinic and hold himself ready to discuss the unusual cases with the younger doctors. Once a week, or less frequently in small hospitals, the nose and throat staff should meet with the pathologist and discuss the clinical necropsy findings on patients who have died since the last conference. The chief should also allot the ward operations to the younger physicians. At least once a month there should be a conference on all the interesting cases seen during the month either in the clinic or the hospital.

The resident or intern assigned to the otolaryngologic division should preferably be one who has had his ear, nose and throat training in the out-patient department. He should take the histories on all cases, both ward and private, make examinations, record findings and perform any

sundry treatments and duties assigned by staff men. Here, as in the clinic, the prime purpose of the training that the intern receives should not aim merely at surgical procedures. The when and how of otolaryngologic treatments and examinations are more important than surgery. Only to residents who are receiving full instruction in this specialty should surgery be allotted, and then only under the closest supervision. The intern should be responsible for thorough and complete records of each case, cooperating with the staff men in this respect. He should be available for any assistance that may be required of him. Here, too, as in the out-patient department full cooperation between the laboratory, x-ray department and staff should be made use of to ensure the maximum of instruction to the younger internal staff men.

Auxiliary Services

The social service department is of inestimable aid especially as regards ward patients. Complete cooperation should exist between the department of admission and the department of social service. Each patient coming to the hospital, whether as a ward or private patient, should receive the utmost courtesy and attention.

Nurses supervising both the private and the ward sections need special aptitude for this type of work and should be especially trained. The student nurse needs practical and theoretic instruction in nose and throat nursing both in the clinic and in the hospital proper. A series of lectures should be given by the staff men to the students so that they are not thrown on the wards without some training and some conception of what nose and throat nursing means. This training should be a part of the curriculum of the nursing school.

Mention has been made of the record department in the discussion of the out-patient department. The hospital records should have such additional special sheets as to make the department records complete. The clinic record should accompany the patient to the hospital and the hospital record accompany the patient back to the clinic.

A library accessible to the staff should also be associated with the hospital. As many of the standard works on otolaryngology as the hospital can afford should be included.

As in the out-patient department, the ear, nose and throat division occupies an important position in its relation to the other staffs. Consultation should be freely granted and received in aiding diagnosis and treatment, in sharing other responsibilities and in giving the patient the fullest resources of the hospital. Every eye case, every neurologic case and every medical case, should receive an otolaryngologic examination while on

the wards. Each of the more serious otolaryngologic patients should receive the benefits of all sundry consultations of other services that may be of benefit. The otolaryngologic service should also take an active part in the clinical and pathologic conferences of the general hospital staff.

The department of endoscopy, either as a separate entity or as an integral part of the otolaryngologic department, should promote the closest cooperation with the surgical and medical services.

The otolaryngologic service as a whole or a committee representing this service should confer with the medical director at frequent intervals in order to increase the department's efficiency.

Since January 1, 1933, the Newark Beth Israel Hospital has successfully instituted an all-inclusive rate schedule for various services, which includes room and board, x-ray and laboratory examinations, cardiographic examinations, operating room, medical and surgical supplies, routine medications, physical therapy, special diets and casts. The following all-inclusive rates are effective for tonsil patients: semiprivate patient, for a two-bed room if the patient is discharged same day of operation, \$10; semiprivate patient, for a two-bed room if he remains overnight, \$12; private patient, \$18. If the patient remains at the hospital until after 6 p.m. the day following the operation, an additional charge of \$5 a day is made for all classifications of patients.

Every Detail Requires Closest Attention

We have attempted to outline the organization of the otolaryngologic department of a general hospital in which the patient, the physician and the administration may derive the fullest benefits. Equipment, both instrumental and structural, medical staff, social service, nursing staff and other auxiliary services form a closely knit, compact and sound structure in this organization. No detail is too minor to receive the closest attention of the staff and the administration, and it is only in constant experimentation, improvement and supervision of both the in-patient and out-patient departments that the service will attain its maximum efficiency.

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Special Nursing—Is It a Necessity or a Luxury?

HERE is a study of special nursing care as it affects the costs of hospitalized sickness. It is presented in the hope that ultimately a plan may be worked out that may help keep within bounds the costs of special nursing to the patient of moderate means.

Hospital and nursing executives and physicians know that in many instances special nursing care is ordered by the patient or by a distressed relative not because of the medical exigencies of the case but from a desire that the patient shall obtain the best possible care that money can buy. This is a worthy desire and one with which none will find fault if the patient is fully and easily meeting all costs, including hospital and physician's bills.

But in the case of semiprivate or ward patients, where hospital and doctor have reduced charges to a minimum, it seems fair that special nursing care be permitted only in the light of medical and nursing requirements. That special nursing care in such cases has sometimes been overdone is indicated by the number of hospitals that have instituted group nursing care.

To take this question of how much special nursing care is required out of the realm of conjecture into the clear light of facts and figures, we have taken advantage of an unusual situation that exists in our hospital to study comparative data on special nursing for service patients and for private and semiprivate patients. We use the term "service" patient at our hospital instead of "charity" patient, because we regard the term "charity" as obsolete. It is not in keeping with the terminology and spirit of the New Deal, whereby the helping of an underprivileged neighbor is recognized as an act of justice and duty and not as charity.

The Plan Used at Mount Sinai

For a number of years a young woman's auxiliary of the hospital known as the Service Club has provided funds for special nursing care for service patients whose medical condition requires it. No restrictions have been placed on the use of the fund other than that all service patients medically in need of such care will be assigned a special nurse. Whenever, in the judgment of the attending physician, the chief resident, or the director of nurses, a special nurse is needed, one is provided.

Private patients at Mount Sinai, Chicago, get from eighteen to twenty-four times as much special nursing care as is medically necessary, Mr. Dubin finds. A flat charge for complete nursing service, including special care when needed, is a future possibility. Some such policy will help cut sickness costs and will stabilize nurse employment, this author believes

By MAURICE DUBIN

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Wards in our hospital consist almost entirely of one, two or three-bed rooms and therefore service patients are cared for under practically the same general nursing conditions as are private and semiprivate patients. For this reason we feel it fair to assume that semiprivate and private patients, if ordering special nurses solely by the standards of medical requirements, should need them in about the same proportion as the service patients.

Tables I and II list by certain diagnoses for a period of twelve months the number of private and of service patients, the number of patient days' service to each group, the average stay in patient days, the number of patients having special nurses, the number of special nursing days' care to each group, the average number of days of special nursing for those cases that had special nursing and, in the final column, the necessary number of special days' care in the private group based upon the amount of such care given to the service group.

Table I lists the more frequent and common types of conditions for which there is a call for special nursing care. Table II records the same type of data under broad systems of disease for

TABLE I—STATISTICAL STUDY OF PATIENT DAYS AND SPECIAL NURSING DAYS FOR ONE YEAR, MOUNT SINAI HOSPITAL, CHICAGO

Diagnosis	No. of Patients		No. Patient Days		Average Stay in Days		No. Pts. With Spec. Nurses		No. of Spec. Nurs. Days		Av. No. Days Spec. Nurs. ¹		Necessary Pri. Spec. Nurs. Days
	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	
Pneumonia	53	39	647	681	12.2	17.4	40	6	418	18	10.4	3	17
Abdominal Surgery	217	131	2,245	1,439	10.3	11.0	102	10	719	24½	7	2.4	38
Cardiac	142	104	1,474	1,375	10.2	13.2	39	1	321	1	8.2	1	1
Thyroid (Surgical)	30	24	365	429	12.1	17.8	18	1	122	2	6.7	2	2
Diabetic Coma	27	17	420	289	15.5	17.0	—	—	—	—	—	—	—
Genito-Urinary Surgery	11	7	212	135	19.2	19.2	8	1	86	6	10.7	6	10
Gynecologic Surgery	102	72	1,002	817	9.8	11.3	24	2	98	3	4	1.5	4
Malignancy	18	—	285	—	15.8	—	—	—	—	—	—	—	—
Malignancy, late	45	31	523	448	11.6	14.4	25	3	258	5	10.3	1.6	6
Hemoplegia	2	3	25	24	12.5	8.	2	—	22	—	11	—	—
Fractures	70	20	765	346	10.9	17.3	7	—	99	—	14.1	—	—
Obstetrics	622	367	5,655	3,468	9.1	9.4	35	3	154	9	4.4	3	15
TOTAL	1,339	815	13,618	9,451	10.1	11.6	300	27	2,297	68½	7.6	2.5	93

¹For those patients only who had some special nursing.

practically all patients treated during the period.

Table I, the general trends of which are similar to Table II, shows a group of private patients and service patients with varying kinds of sickness, some of which call for special nursing care. In the private column, we find 1,339 patients who stayed a total of 13,618 patient days, averaging 10.1 days per patient. They used 300 special nurses, totaling 2,297 special nursing days having an average of 7.6 days' nursing care for each of the 300 cases, or

1.71 days for each of the 1,339 private patients.

The service patients total 815; they received 9,451 days of hospital care, averaging 11.6 days per patient. They used 27 special nurses totaling 68 nursing days. This is an average of 2.5 days' care per patient, or 0.083 day's special nursing care for all 815 patients.

If we assume that the number of special nursing days given to the group of service patients on the basis of their purely medical requirements ought

TABLE II—STATISTICAL STUDY OF PATIENT DAYS AND SPECIAL NURSING DAYS FOR ONE YEAR, MOUNT SINAI HOSPITAL, CHICAGO

Diagnosis	No. of Patients		No. Patient Days		Average Stay in Days		No. Pts. With Spec. Nurses		No. of Spec. Nurs. Days		Av. No. Days Spec. Nurs. ¹		Necessary Pri. Spec. Nurs. Days
	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	Pri.	Serv.	
Locomotor	86	65	849	985	9.9	15.2	1	—	21	—	21	—	—
Respiratory	186	200	1,400	1,607	7.5	8.0	58	10	409	36	7	3.6	32
New Growth	62	25	781	378	12.6	15.1	28	2	281	5	10	2.5	10
Female Generative (Obstetrics)	622	367	5,655	3,468	9.1	9.4	35	3	154	9	4.4	3	15
Female Generative (Newborn)	531	310	5,284	2,898	10.0	9.3	3	—	2	—	.6	—	—
Respiratory (Tonsil)	456	314	490	412	1.1	1.3	10	—	31	—	3.1	—	—
Digestive	333	214	2,936	2,108	8.8	9.9	111	8	658	26	5.9	3.2	36
Female Generative	160	101	1,277	946	8.0	9.4	38	2	135	5	3.5	2.5	7
Urinary	70	34	643	575	9.2	16.9	7	1	82	2	11.7	2	2
Circulatory	160	114	1,772	1,414	11.1	12.4	46	3	419	5	9.1	1.6	6
Lymphatic	17	19	110	255	6.5	13.4	—	—	—	—	—	—	—
Male Generative	21	19	300	301	14.3	15.8	4	—	32	—	8	—	—
Nervous	39	27	310	299	7.9	11.1	4	—	25	—	6.2	—	—
Mental	14	2	80	11	5.7	5.5	—	1	—	4	—	4	29
Skin	15	32	68	204	4.5	6.4	—	—	—	—	—	—	—
Blood	18	16	180	222	10.0	13.9	4	—	78	—	19.5	—	—
Nutritional	59	37	517	503	8.8	13.6	8	—	56	—	7	—	—
Poisoning	—	1	—	1	—	1.0	—	—	—	—	—	—	—
Ear	49	36	434	712	8.9	19.8	8	5	11	20	1.3	4	12
Ductless Gland	43	32	457	488	10.6	15.3	22	1	135	2	6.1	2	2
External Agents, gen. results of	2	1	5	1	2.5	1.0	1	—	1	—	1	—	—
External Agents, traumatic results of	59	17	266	169	4.5	9.9	12	—	109	—	9	—	—
Eye	12	14	107	143	8.9	10.2	3	—	19	—	6.3	—	—
Infectious	24	25	252	167	10.5	6.7	15	1	265	7	17.6	—	10
No diagnosis	9	7	57	53	6.3	7.6	—	—	—	—	—	—	—
Animal Parasitic	1	—	21	—	21.0	—	1	—	1	—	1	—	—
TOTAL	3,048	2,029	24,251	18,320	8.0	9.0	419	37	2,924	121	7	3.2	161

¹For those patients only who had some special nursing.

to have been sufficient for the private patient group, the total number of days of special nursing care necessary for the latter would have been 93 instead of 2,297.

Differences in costs were due to two reasons: (1) the greater number of private patients having special nurses, and (2) the greater length of time that nurses were kept in the private cases, it being 5.1 days more than on the service cases. Even in this depression the private patients were receiving from eighteen to twenty-four times as much private nursing service as was considered necessary for the service cases. This is true in spite of the fact that private patients had just as good floor nursing available as service patients.

Semiprivate and private patients may not, of course, be subject to the same degree of administrative control as service patients and more catering to whims may be necessary. Nevertheless there is food for thought in these figures, especially for hospitals and physicians struggling with the problem of reducing the costs of illness to patients of moderate means.

Has the time not come for a new approach to the problem of special nursing care? Should we not conceive that in nursing service as in other forms of hospital service we should be so organized as to meet all the possible medical needs of the patient? Should we not regulate our charges so that it is possible for us as a rule to provide special nursing care without special charge whenever dictated by the medical needs of the patient? Should we not regard it as our legitimate right to refuse special nursing care to a patient when it seems to us to be nothing more than a luxury?

A Bit of Hospital History

Twenty years ago this month:

The threatened disappearance of the general practitioner was bemoaned. An editorial in the March, 1914, issue of *THE MODERN HOSPITAL* prophesied that in the future the general practitioner would have no place on the hospital staff.

Louisville, Ky., was proud of its new City Hospital "of a composite pattern, made up of all that is best from the old and new worlds, and fresh from the constructive brains of the most noted hospital experts of the South."

Dr. Herman M. Biggs, general medical officer of New York, induced the New York legislature to pass a law permitting tuberculosis sanatoriums to maintain workshops for patients.

Dr. William A. White, superintendent, Government Hospital for the Insane, Washington, D. C., urged general hospitals to maintain out-patient departments for the advice and treatment of persons with mental disease.

The President appointed Col. William C. Gorgas to be surgeon general of the U. S. Army.

Educational and experimental work along these lines is necessary if we are to take the subject of illness costs out of the domain of merely conference discussion and journalistic speculation into the laboratory of trial and proofs. Hospitals in many cases have certain definite charges for operating rooms and laboratory services. In the operating room in some cases only a few minutes of time may be required. In other cases, several hours may be needed, yet the charge for the operating room is usually the same. By the principle of flat charges for laboratory service, patients are enabled without undue strain on their pocketbooks to receive every necessary laboratory examination. But such examinations are made upon the doctor's request based upon the medical needs and not on the patient's or a relative's request. Thus by a limited application of the principle of insurance, a fair and reasonable charge for all necessary services may be assured to all patients.

Would End Haphazard Nurse Employment

May we not conceive of a complete nursing service, with special nursing care when indicated, as an obligation of the hospital, with charges regulated to assure its possibility within the bounds of medical needs? Incidentally, such regulations and organization would ultimately promote better understanding of the nursing needs of a community, for nurses in the main would be in institutional employ. Employment of private duty nurses by hospitals would be based on the actual nursing and medical requirements of such institutions. Nurses would not be subject to haphazard employment based on the patient's whims or his pocketbook.

Philadelphia physicians planned to wage a crusade against "dispensary abuse."

The Galveston chapter of the American Red Cross called for nurse volunteers to serve on both sides of the Mexican War.

The new Ohio Valley General Hospital at Wheeling, W. Va., was formally opened to the public.

Secretary of the Treasury McAdoo asked congress for \$47,000 to establish a pellagra hospital in the South.

A complete reorganization of the staff of the new Cincinnati General Hospital, with all departments under the direction of faculty members of the university, was announced.

Contrary to the usual custom, a neighborhood association in Washington, D. C., protested the proposed removal of Emergency Hospital from their neighborhood to a more central location.

Canadians were in a ferment over a proposed innovation in their country—the institution of municipal hospitals. The voters of Winnipeg refused to pay a debt of \$275,000 of the Winnipeg General Hospital on the ground that it was a private institution, although the hospital had been taking care of public wards far below cost.

The Cleveland Plan of Dispensary Admissions—Its First Year

By H. VAN Y. CALDWELL

Executive Secretary, Academy of Medicine of Cleveland

Complaints from doctors against the out-patient department for alleged interference with private practice have decreased in Cleveland since the adoption of this plan of dispensary admissions. After a year's operation the large majority of dispensaries, field workers and physicians believe the scheme should be continued without important changes

IN JULY, 1932, there was put into operation in Cleveland a plan of dispensary admissions designed to correlate the private practice of medicine with dispensary practice. Following announcement of the plan great interest was shown in many cities throughout the United States, as well as by the local medical profession and social agencies. The Central Committee on Dispensary Admissions was careful to point out in all its replies that the plan was an experiment and that no conclusions should be drawn until it was possible to review a full year's operation.

This report covers the first year of operation and is a study of facts and opinions gathered from all interested groups, together with such conclusions as could be drawn.

Local Conditions Governed Plan

It must be understood that the plan was designed primarily to fit Cleveland conditions. Any attempt to follow similar plans in other cities should take into consideration the conditions of private and dispensary practice prevailing in those centers.

The groups in Cleveland most largely interested in or operating out-patient departments are as follows:

1. The Welfare Federation, which is composed

of some 110 agencies, including privately endowed hospitals that operate out-patient departments; nursing groups and family and case work agencies that refer cases to out-patient departments, and various councils or groupings of these agencies for purposes of community planning.

2. The Jewish Welfare Federation, similar to the Welfare Federation but operating in a limited field.

3. The Hospital Council, with membership of nineteen private and public hospitals.

4. The Department of Public Welfare of Cleveland, which operates the City Hospital with its out-patient department and provides the services of district physicians, city nurses and city health stations.

5. The Academy of Medicine, which is the county medical society with a membership of approximately 75 per cent of the practicing physicians of Cuyahoga County.

6. Other smaller groups, such as health services of the county, suburbs and schools and probation departments of the courts.

At the instance of the academy representatives of the above groups met to discuss the problem of admission to out-patient departments and plan methods to improve the situation.

Plan Accepted by Many Agencies

In July, 1932, after a series of studies and conferences, the group reported acceptance of the Cleveland Plan for Dispensary Admissions, by the following agencies: Welfare Federation, Hospital Council, Academy of Medicine, Charity Hospital, Fairview Park Hospital, Huron Road Hospital, Mount Sinai Hospital, St. Alexis Hospital, St. Luke's Hospital, University Hospitals, City Hospital, St. John's Hospital, School Division of Health, Welfare Association for Jewish Children, Associated Charities, Child Guidance Clinic, Children's Bureau, County Board of Child Welfare, Cleveland Chapter, American Association of Hospital Social Workers, Girls' Bureau, Humane Society, Jewish Social Service Bureau, Juvenile Court, Travelers

Aid Society and the Red Cross Home Service Department.

To supervise the operation of the plan a central committee on dispensary admissions was appointed. Members of the committee are Dr. J. E. Tuckerman, Dr. K. E. Ochs, Kathryn Gallagher, Dr. E. L. Harmon, William I. Lacy and Harry F. Affelder; H. Van Y. Caldwell, secretary.

The Academy of Medicine offered the services of its executive office and its executive secretary to this committee. In addition, the academy financed the printing of reference slips for the first year of operation.

Outlines of the plan were distributed to all agency workers, together with supplies of reference blanks and lists of physicians willing to cooperate, and the plan was declared in operation as follows:

Principles for Dispensary Admission

All social agency workers agree to refer all cases that, at one time or another, have been under the care of a private physician back to that physician. No time limit is to be applied to this principle.

It is agreed that all other persons who now or ultimately might be able to pay something should be referred by the social worker to a neighborhood physician.

The out-patient departments of all the hospitals agree, through their social service departments, to follow the two courses of action outlined above.

Application of Principles

The plan is to be applied to new admissions only.

To handle the "traffic" and other problems inherent in the plan, there should be a central committee composed of representatives of the major groups involved, to which individual problems can be presented and by which modifications of the plan may be recommended.

From the questionnaires that have been returned to the study committee, the academy will compile lists of physicians who are willing to cooperate in the plan. These lists together with the names, addresses, telephone numbers, specialties and office hours will be supplied to the social agencies.

When there is no family physician to whom the patient will return, the agency worker will ask the patient to select a physician from a list.

The central committee will supply to all agency workers a pad of forms in triplicate to be used as referral slips. The slips shall contain space for the name and address of the patient, the name and address of the doctor to whom the case is referred, the name and address of the agency and of the worker making the reference. At the bottom of the slip shall be a line to be filled out by the doctor if he

does not keep the patient but refers him to a dispensary.

The worker shall give the patient one slip to take to the doctor, shall send to the central committee the second slip and shall keep on file with the agency the third slip. An individual number shall be printed on each set of slips for identification purposes and if possible agencies referring the larger groups shall have distinct colors for their slips for easy identification in filing.

The patient shall take the slip to the doctor who will then proceed as follows: He will treat the patient for such fee as he and the patient agree is fair, or he will treat the patient free or on a deferred payment basis, or he will refer the patient to a dispensary (filling out the line at the bottom of the slip and giving it back to the patient to take to the dispensary).

Dispensaries receiving patients with slips shall send these slips to the central committee for filing with the corresponding slip mailed in by the referring agency.

On March 25, 1933, because it had become apparent that there was need to correct misunder-

TABLE I—SUMMARY OF REFERENCE SLIPS FOR FIRST YEAR

Referring Agencies	Single Slips	Duplicate Slips	Total	Per Cent. Single Slips
Dispensaries	3,940	2,503	6,443	61
Univ. Nursing Dist.	398	52	450	88
V. N. A.	1,054	128	1,182	88
Miscellaneous	110	54	164	66
Asso. Charities	1,207	281	1,488	80
Public Schools	522	171	694	74
City Div. of Health	1,488	183	1,670	89
E. Cleve. Div. of Health	125	48	173	72
	8,844	3,420	12,264	72

standings of the principles of the plan, a letter of explanation was distributed to agencies with a request that the explanation be passed on to the individual workers.

The committee had learned, the letter said, that there was a widespread idea that no client of a social agency should be sent directly to an out-patient department. It was never intended that individuals who evidently ought to be sent to an out-patient department should be sent first to a neighborhood physician.

The plan, it was explained, was merely to keep the normal doctor-patient relationship in cases in which the client would, if economic conditions were reasonably normal, be able to consult a private doctor, or in cases in which the client had been under the care of a doctor but hesitated to ask him to carry him further without payment. The com-

mittee's letter also explained that hospital out-patient service should be used for clients who were obviously unable under normal conditions to pay for their care.

In order to ascertain how successful the plan had been, the central committee instituted a series of studies after the plan had been operating a year.

In addition a study was undertaken by Kathryn Hubbard, a graduate student of the school of applied social sciences of Western Reserve University. The committee is privileged to cite Miss Hubbard's study in several instances where her findings are of value in interpreting statistics compiled from central committee records.

Study 1—Statistical Summary of Reference

The central committee receives reference slips from two sources. (a) Agency workers sending patients to physicians file with the committee a duplicate of the reference slip that the patient carries to the physician. (b) Out-patient departments send to the central committee reference slips collected from patients who have been referred on to them by physicians after the patients have been sent to the physicians by agencies.

Therefore, the central committee has two sets of slips: single slips received from agencies, which presumably indicate that the patient was not re-referred to an out-patient department, and duplicate slips, indicating that the physician has not kept a patient referred to him by a worker but has sent him on to an out-patient department.

A summary of the slips received by the central committee from July, 1932 to July, 1933 is shown in Table I.

This summary seems to indicate that 72 per cent of the patients sent to physicians by workers were not re-referred to out-patient departments.

Miss Hubbard's study, however, disagrees. With the help of the central committee Miss Hubbard chose at random 121 cases from all sections of the city that presumably had been sent to physicians and not returned by them to out-patient departments. Each patient who could be located was interviewed at home and each doctor to whom the patient was sent was visited.

Miss Hubbard's study showed that one-third of the references were kept as patients by physicians; one-third were sent by physicians to a dispensary, and the other one-third tore up their slips, went home, sought drug store remedies, and could not be accounted for.

If we apply this ratio to our own study we find that instead of 8,844 patients being cared for by private physicians, the number should be corrected to approximately 3,000 or about 25 per cent of the total reference.

The discrepancy between the central committee figures and Miss Hubbard's study may be accounted for partly by a loss of slips or failure to file them with the central committee. Since Miss Hubbard's study covered only a limited number of references it is possible that interpretation of the central committee figures in the light of her findings may not be entirely correct.

Study 2—Opinion of Medical Profession

A questionnaire mailed to all members of the academy was answered by 303 members. Of these answers, 281 could be tabulated. The questions and answers are summarized as follows:

Q.—Has the system increased your free work to an embarrassing degree? A.—Yes, 15. No, 259. Doubtful, 2.

Q.—Has the system helped you to maintain contacts with families who would otherwise have been lost to private practice? A.—Yes, 146. No, 138. Doubtful, 8.

Q.—Have you found that the system has increased the intelligent cooperation between private agencies and your practice? A.—Yes, 132. No, 114. Doubtful, or have no knowledge, 29.

Q.—In your opinion is there enough value in the system to warrant its continuance? A.—Yes, 172. No, 72. Hesitant in expressing a specific opinion, 36.

Q.—Would you be willing to care for indigent cases if drugs and medicines were furnished to patients whom you are serving without recompense? A.—Yes, 196. No, 39. Not answering or answering in a way difficult to interpret, 39.

The final question was inserted to obtain guidance for another committee charged with developing the details of the federal relief plan for the care of the indigent sick and has no direct bearing on this study, save that it shows the willingness of the medical profession to care for the indigent without recompense, provided medicines could be furnished.

Comments and criticisms were also sought in the questionnaire. Those offered by physicians were of three distinct types: those showing inadequate understanding of the plan; those showing a biased point of view, and those showing an understanding of the plan.

The first type of criticism added emphasis to the belief of the committee that more information for the physician is necessary to make the plan more effective.

Biased comments ranged from arguments against all dispensary practice to comments on matters not covered in the questionnaire.

Understanding comments and suggestions from many sources may be summarized as follows: (1)

Workers should indicate on the slips their understanding of the financial status of the patient. (2) More appreciation is needed on the part of both social worker and public of the fact that the welfare of the medical profession is intimately related to the public welfare. (3) The impression that physicians are paid for their work in dispensaries or for their care of the poor in private practice should be corrected. (4) A plan for closer contact between agency worker and physician should be evolved. (5) Among abuses of the plan cited are the fact that the physician is practically forced to sign the slip sending people on to dispensaries, and that too many physicians refer cases on to dispensaries without further inquiry.

The foregoing comments are cited as illustrations. They indicate that the majority of physicians felt the plan was working adequately.

Study 3—Opinion of the Dispensaries

A questionnaire somewhat similar to the questionnaire answered by physicians was mailed to dispensaries, welfare agencies and governmental services. The replies from the dispensaries, together with pertinent comments on each question, are listed as follows:

Q.—Has the system been of service to your agency or has it been a hindrance? A.—Help, 8. Hindrance, 2.

Among favorable comments on the plan were the following: "has helped to eliminate from dispensary border line cases"; "has decreased number of new admissions"; "has enabled us to know what doctors are willing to cooperate," and "extra work

TABLE II—SHALL PLAN BE CONTINUED?

	Yes	No	Per Cent Favorable
Physicians	172	72	70
Dispensaries	8	1	88
Agency Workers	23	3	90

entailed has been offset by lessening of investigations beyond the first inquiry when the patient has returned to the doctor."

The chief unfavorable comment had to do with the loss of valuable time by the patient.

Q.—Has the service helped to improve the relationship of your agency with private physicians? A.—Yes, 6. No or doubtful, 3.

A typical comment, repeated in various ways, was: "Physicians understand us better."

Unfavorable comments were that there was too little contact with private physicians, and that the majority of physicians not connected with the out-patient departments' hospital returned the patients.

Q.—In your opinion is there enough value in the

system to warrant its continuance? A.—Yes, 9. No, 1.

The dispensary answering in the negative is doing a special piece of work in the poorest district.

A fourth question was: Are there any modifications of the system you can suggest to improve it?

Comments from the dispensaries suggest that "we explore the danger of alienation of the private physician and his patient when such patient becomes a dispensary patient and is hospitalized"; recommend confining the use of reference blanks to dispensaries, despairing of "teaching agencies other than dispensaries to respect the rights of private physicians and believing that the medical profession and social service departments of hospitals might seriously accept the obligation of teaching other agencies in this respect";¹ suggest that families receiving material relief be sent direct to dispensaries; ask what becomes of the patient who, not accepted by the physician, fails to report back to the dispensary and what about the patient whom the physician continues to treat inadequately, until his small sum is exhausted and then refers him to a dispensary?

Study 4—Opinions of Workers in Other Agencies

Q.—Has the system been of service to your agency or has it been a hindrance? A.—Of service, 16. Hindrance, 4. Doubtful, 7. Not answering, 2.

Favorable comments were as follows: "Patients take to it kindly." "It has made possible medical services for some who would otherwise have been without it." "It has brought us in touch with physicians." "It has made the patient more appreciative of care received at the dispensary." "Patients receiving slips feel they are receiving individual attention and also feel they receive better care at dispensaries when sent by physicians." "Patients feel they get better attention from private physicians." "Patients are relieved of long waits at dispensaries." "The plan has lessened criticism of dispensaries."

The unfavorable comments include the following: "Some physicians take a negativistic attitude." "Physicians do not cooperate." "The plan means loss of time for the patient." "The patient has no means of getting prescriptions filled." "It means additional car fare for the patient." "Some patients do without care instead of returning to a private physician." "Patients hesitate to go to a strange doctor." "Patients cannot secure adequate reports from doctors."

Q.—Has the service helped to improve the relationship of your agency with private physicians?

¹This point of view was seriously considered in the original adoption of the plan. It was felt however, that the plan as adopted would accomplish this very object.

A.—Yes, 14. No, 7. Doubtful or not answering, 6.

Q.—In your opinion is there sufficient value in the system to warrant its continuance? A.—Yes, 23. No, 3. Doubtful or not answering, 3.

To the question "Are there any modifications of the system that you can suggest to improve it?" the following comments were made: "Reports should be made from physicians to dispensaries or field workers." "The scope of the plan should be extended." "Arrangements should be made for filling prescriptions." "The physician should be educated more adequately." "Doctors should set special office hours to care for these patients." "Blanks should be enlarged to provide space for comment by the worker." "Better contact should be developed between agency worker and physician." "Patient should be given the choice of accepting the plan or going to the dispensary." "More adequate instruction is needed on the interpretation of principles."

A summary of the attitudes expressed is contained in Table II.

The following general conclusions may be drawn from the preceding material:

1. The plan is succeeding in returning to private practice about 25 per cent of the patients referred out. Probably 50 per cent are ultimately returned to the out-patient departments.

2. There is not uniform acceptance of the plan by agencies or workers owing to one or more causes

such as failure to understand the plan, lack of sufficient instruction from the central committee, indifference and abuse.

3. Generally, there has been whole-hearted cooperation by physicians, agencies and workers.

4. Hardship has been imposed upon some patients by the plan.

5. There has been a definite improvement of the relations between dispensaries and private practice and between field workers and private physicians. Verbal reports from several hospital superintendents indicate that the number of complaints against the hospitals for alleged interference in private practice have decreased remarkably.

6. A large majority of the dispensaries, field workers and physicians answering the questionnaire believe the plan should be continued.

The committee, therefore, has submitted to the member bodies recommendations for continuance of the plan without important modifications and for a definite campaign of education of dispensaries, field workers and physicians, including periodic communications to each worker and physician and a manual of instructions for operation of the plan. The manual is expected to answer or correct many of the questions and impressions contained in the replies to the questionnaires.¹

¹This is the report of the Central Committee on Dispensary Admissions.

"I Go Nursing"*

Many nurses are topnotch story-tellers, but their writing efforts seldom extend beyond their patients' charts. Consequently, the reading public has little appreciation of the terrible drama and the compensating joys that make up the professional lives of these women workers in the broad field of medicine.

Now comes a former private duty nurse, Corrine Johnson Kern, to tell in the first person an intense story of her years in nursing. One can only regret that this book, telling in dramatic detail as it is, has in it so little of the warmth, the idealism, the humor and the zeal for teaching that are merged into the personality of the really good nurse. The experiences related in this book have a decidedly seamy slant, and while they may easily be authentic they give the public a distorted view of a profession in which service is still the predominant note.

Only the first and last chapters are laid within the hospital walls. They are hardly reassuring to the prospective patient. On the very first page, the author, seventeen years old and just completing her third month as probationer, is placed on special duty for the night. "I am promised a strange adventure—to watch a patient die." That was back in the San Francisco of 1900, but the reader may forget that thirty-odd years have passed and wonder when a life that is precious to him may ebb out alone under the eye of a seventeen-year-old probationer.

On her second night, the student nurse is again assigned

to "special" a dying woman. Her mounting horror at being brought so abruptly face to face with death makes sensational reading, but the deliberate speeding up of events for a dramatic climax makes the hospital seem little more than a house of tragedy.

Out of the hospital in Chapter 2, she goes as a full-fledged R.N. on her first case—a maternity case, although she "loathes obstetrics" and "finds something repulsive about a pregnant woman." From this unconventional household, we follow her to the sick room in the rear of Oley Peterson's saloon where she is trapped by a madman; to a "one-night stand," where in a final death struggle the patient "flops like a fish out of water"; to a haunted house; to a psychopathic case; to a farm home, and through amputation, tuberculosis, typhoid fever, the cremation of a fetus in a bakery oven, and finally back to the hospital where she nurses to health the young doctor she is to marry.

One chapter treats briefly of a rural hospital experience in a logging town near the Canadian border. Deserted by the only doctor, both hospital and community are left for three weeks in the hands of the young nurse.

Because this book describes certain intimate details of birth, death and surgery not familiar and therefore fascinating to the layman, it may get a wide audience. If it inspires some equally talented nurse-author to write a better balanced picture of private nursing, it will have served a useful purpose.—M. W.

*E. P. Dutton & Co., New York, 1933, \$2.50.

How One Hospital Council Serves Its Membership

By H. THEODORE SORG

President, Hospital Council of Essex County, Newark, N. J.

THE hospital needs of the 850,000 persons who live in the twenty-one municipalities of Essex County, New Jersey, are met by seventeen voluntary charitable hospitals for general acute cases, three county hospitals for special services—tuberculosis, contagious diseases and mental diseases—and two municipal general hospitals. In addition there are two small private general hospitals.

Essex County has an area of 130 square miles. It lies within the New York metropolitan district, approximately fifteen miles from New York. Ten of the seventeen voluntary charitable hospitals in the county are in Newark. This city has a population of approximately 450,000, more than one-half of the entire population of the county. The remaining seven charitable general hospitals are situated in two groups—four in the area known as the Oranges and three in the Montclair district. In other words, the hospitals are situated in three distinct areas within the county. All but four of these hospitals—two in Newark and one in each of the other areas—are supported by community chests.

The Purposes of the Council

In such a territory it is more or less to be expected that the community relationship and interest of these hospitals should transcend the boundary lines of the communities in which they are situated. Community hospital surveys were undertaken in due course of time. One in particular, financed by the late great philanthropist, Felix Fuld, served to strengthen the growing realization that there was need for cooperation and correlation of hospital experience consistent with institutional autonomy. This growing conviction finally led to the organization in 1931 of the Hospital Council of Essex County which now includes all but one of the voluntary charitable hospitals in the county.

The purposes of the Hospital Council of Essex

Insofar as the experience of one hospital may be helpful to another, it is the common duty and responsibility of each to the other and to the community to render this measure of cooperation. This correlation of experience can best be brought about by the organization of a hospital council

County are summarized in the articles of incorporation as follows: "To promote the efficiency of and the cooperation between the various hospitals . . . ; to act as a medium of information . . . ; to collect and compile reports and statistics that may be deemed of help . . . ; to initiate, aid or assist in the development of a health program for the communities served by its membership; to operate and maintain a purchasing department, and generally to do any and everything necessary for the betterment, protection and best interests of the membership."

The by-laws of the council provide that the membership shall consist of (1) two representatives from each hospital or other agency represented in the council, namely, the executive and a member of the governing board, these representatives voting as a unit; (2) the executive director of the municipal and county hospitals; (3) not more than fifteen members at large representing the public interest in general, and (4) a representative from each of the three organized county societies—medicine, dentistry and nursing.

The governing board of the council consists of an executive committee of eleven members including the president of the county medical society.

At the outset the annual budget of the council was fixed at \$12,000 but the actual expenses have never exceeded \$10,600 annually. Member hospitals pay these annual expenses on a pro rata basis calculated on the amount of their respective operating budgets.

The employed staff of the council includes the executive secretary, Frank Van Dyk, who has had many years of hospital experience, together with

an assistant, a stenographer-secretary, a book-keeper-clerk, a typist and two investigator-collectors for the bureau of overdue accounts. A central office is maintained in the heart of the Newark business district.

In addition to the paid organization of the council there is the voluntary group termed the executives division of the council which includes the administrators or superintendents of the member hospitals. The members of this group meet monthly for the discussion of pertinent administrative problems, and, if indicated as desirable, they prescribe uniform practices, procedures and rates for service.

The council was founded on the principle that hospitals have a common obligation to each other and that insofar as the experience of one may be helpful to another, it is the common duty and responsibility of each to the other and to the community to render this measure of cooperation. The council is a voluntary organization, created and supported by its members. It has no control or supervision over any of its hospital members. It serves its membership not through official power or authority, but through the confidence inspired by the reasonable measures it advocates.

Generally speaking, the efforts of the council have created a greater unity of purpose among member hospitals. One of the outstanding manifestations of its worth is the greater spirit of cooperation and the greater measure of mutual understanding existing between members.

Monthly Meetings Are Helpful to Administrators

Information relative to member hospitals is compiled and kept up to date in the office of the council. From this office there is maintained a service to meet the individual needs or requests of member hospitals. Studies and compilation of data covering a wide range of subjects is undertaken whenever the need for any specific facts arises or when any request is made. It is gratifying and significant to note the growing recognition of the council by other agencies interested in welfare work or concerned with hospital operation. In supplying considerable data and rendering service in analyses and interpretations of the work of hospitals the council has materially aided in creating a better public understanding and appreciation of the problems of member hospitals as well as the extent and scope of their work.

At the monthly meetings of the hospital executives division administrators gain the advantage of correlation of experience brought to light by the reports and discussions of findings of research and studies undertaken by the council staff or special committees.

While many of the benefits of the services cannot be measured in dollars and cents, member hospitals have on various occasions carefully computed the tangible benefits in light of the amount paid in membership dues. In each case the benefits have far outweighed the cost. It is true that some hospitals utilize the facilities and services of the council to greater extent than do others, and it naturally follows that the measure of service rendered will be in accordance with the appreciation and demand for that service. After all, the council can do only what its membership wishes or directs it to do.

Facilities and Services Offered

The facilities and services of the council include the following:

1. Preparation and development of uniformity of service and financial records. A uniform outline of service records and accounting has been adopted by nearly every member hospital, rapidly creating a better understanding of hospital operation and providing opportunities for more adequate comparisons and studies. At the present time a new plan to create a more comprehensive central statistical bureau is under serious consideration. Present indications show that this central service offers a definite solution to the vexing problem of accurate compilation of hospital statistics. Also this service is expected to provide an opportunity for uniform interpretation of hospital information regarding the nature, volume and trends of service.

2. With the availability of hospital data the council is in a position to interpret local hospital service and problems to the community by means of newspaper articles. Radio presentations have been made and talks have been given before various civic organizations. Because of its many contacts with the public, the council utilizes every advantage to create a better public understanding of the hospitals, their service and their problems.

3. The council's efforts in promoting cooperative purchasing, particularly of foodstuffs, have resulted in substantial economies for participating hospitals. Frequent comparisons of commodity prices among member hospitals have proved to be of valuable guidance to administrators and department heads in effecting economical purchases. Purchasing agreements of foods have been effected for member hospitals and have yielded substantial savings. The council was successful in its efforts to obtain favorable consideration from the New Jersey Milk Control Board in the fixing of minimum prices for milk and cream. A 10 per cent discount was granted to charitable hospitals in the purchase of milk and cream by bids. The savings

to member hospitals on this item alone represented 80 per cent of the annual operating cost.

4. Uniform rates for special services to compensation and liability cases were successfully established by the council. This rate schedule was adopted by many hospitals throughout the state and has greatly aided them in the collection of such accounts from insurance companies.

5. A central collection service for overdue hospital accounts was initiated shortly after the beginning of the council, and the annual volume recovered on such accounts approximates \$30,000. The accounts are forwarded to the council for collection by member hospitals only after they have exhausted their efforts. Participating hospitals are charged on a percentage basis equivalent to the cost of this service which averages approximately 22 per cent. When this service was first inaugurated, a loss was incurred in its operation. This loss has been gradually overcome due to more efficient methods until now the service is self-sustaining. The cost of this department, however, is not included in the operating budget of the council. One of the major services of this department is the promotion of better cooperation and understanding between insurance companies and hospitals so that payment may be more promptly and adequately obtained.

6. The council recently obtained the cooperation of the judges of local courts in permitting a member of the council staff to deliver hospital records to courts for use at trials. This service has saved much time of hospital record clerks in traveling to and from courts as well as waiting there.

7. Monthly reports of finances and service are received by the council on standard forms. This information is compiled and used as a basis for comparative studies and analyses. In addition to

the compilation of income, cost and service figures, data including rates, bed capacity, personnel and all other essential hospital information are obtained and compiled. With these data available the council serves as a medium of information not only for its members but for the public as well. In response to requests from the membership, comparisons of costs, income and service are frequently made. Special studies covering a wide range of subjects are also undertaken. Thus the council provides its members with the benefits of the experiences of others.

8. As opportunities are afforded, the council supplies individual member hospitals with advice and service regarding accounting, purchasing, record keeping, collection of accounts, establishment of charges and preparation of budgets. Obviously such advice and service are rendered only when requested and are based on the correlation of experience of other hospitals. Because of its opportunities for contact with the local, regional and national hospital field, the council office is in a strategic position to keep abreast of modern developments in hospital practices and policies and to bring them to its membership.

9. A final and concrete evidence of the council's worth to its membership and to the community is its development of the local group hospitalization plan, the details of which are too extensive for present explanation. Without such a central voluntary body as the council with facilities for research and study, the inauguration of this plan unquestionably would not have reached its present stage of development. The council not only sponsored the plan, which is operated as a separate subsidiary corporation, but its facilities and its staff are constantly engaged in the promotion work and establishment of sound actuarial statistics.

The Preparation of Intravenous Solutions

It is of great importance to the patient that solutions to be employed for intravenous work be scientifically prepared under the most sterile precautions. Not the least important item in this procedure is the careful weighing of the salt to be used and the equally meticulous mathematical computation of the strength of the solution to be employed.

In some instances the preparation of normal salt, sodium citrate, glucose or other intravenous solutions is left to the nursing personnel of the floor or ward. Under this plan concentrated solutions of these ingredients are forwarded to the department from the central supply room or from the hospital drug store and the proper dilutions are made by the personnel in this division. In other institutions chemically pure drugs, properly labeled, are then added to sterile water in amounts sufficient to produce the concen-

tration desired. In still other hospitals the central supply room is entrusted with the preparation of these solutions, the proper concentration ready for intravenous use having been placed in plainly labeled flasks. It becomes the duty of the director of the central supply room to see that these solutions are properly sterilized and delivered upon requisition to the department requiring them.

The last named plan has much to recommend it. In the first place this scheme will effect economy in the use of materials and supplies. It seems likely, moreover, that a greater certainty of accuracy and sterility in preparation can be guaranteed when the same group of nurses are daily occupied in carrying out these precise steps than under any other plan. In small institutions without a central supply room the operating room staff may be held responsible for this work. With a changing nursing personnel such as is usually observed on various hospital floors, it becomes almost impossible to prevent mistakes when the preparation of these solutions is supervised in this manner.

Editorials

What Is the True Risk?

AN ANNOUNCEMENT that a nationally known insurance company has extended its group insurance policy to include payment of hospital bills is evidence of two important facts. First, that group budgeting for hospital care is a benefit highly acceptable to the workers in large industries. Second, that the predictability of average hospital bills makes it possible to offer certain hospital benefits on a group payment plan at remarkably low rates.

Some communities and hospitals have held back from participation in group hospitalization plans on the assumption that this participation would mean new risks to the hospital. As a matter of fact, the hospitals of a community have always carried the risk of providing service to persons of limited means. Moreover this risk has been carried on the strength of expected voluntary contributions or a hoped-for satisfactory balance between pay and free patients. Insofar as group budgeting makes it possible for people to join the full-pay rather than part-pay or free classification, the plan provides additional rather than reduced revenue to the voluntary hospital.

If group hospitalization is a reasonable business risk for private companies who at present have no responsibility for providing hospital care, it is a still better business risk for the hospitals who are already responsible for providing services to the people, regardless of their ability to pay.

In the interest of the public welfare, sponsorship and underwriting of group hospitalization plans by hospitals are much better than similar activities by private companies. Nonprofit sponsorship and promotion assure the hospitals of receiving the full amount paid by subscribers less a reasonable allowance for overhead costs. They obviate the possibility that hospitals will be forced to accept a low fee schedule established by private companies.

In the long run the hospitals and the community should receive more for their money from nonprofit plans of group hospitalization. This is the only logical basis on which to provide medical service and the testimony of other countries points to the disadvantages of introducing a third party or middleman in the provision of medical care.

The insurance companies have shown good judgment in concentrating on large groups of em-

ployees for their experimentation. They have also introduced the principle of paying the hospital bills in part only and in this way protected themselves against the moral hazard. This particular feature may find a more prominent place in the new or revised group hospitalization plans organized under nonprofit auspices.

At the present time nonprofit group hospitalization plans have enlisted the approval of the medical profession in many important communities. The New York State Medical Society last year formally approved the nonprofit type of group hospitalization. More recently the Cleveland Academy of Medicine followed suit. Important state societies, particularly those in Michigan, Oregon and Washington, have gone even further and have approved professionally controlled group budgeting for medical service as well.

If hospitals do not move rapidly in their group budgeting plans they may find that commercial companies have already enrolled many of the larger groups which can be handled with the minimum of overhead cost. If any evidence were needed to indicate the reasonableness of the idea of group budgeting for hospital care, the action by this large insurance company provides it.

Ohio Points the Way

THE staggering toll of life and limb which the automobile exacts continues to mount. Each week-end results in a holocaust that fills accident wards, brings grief or suffering to many households and results in the expenditure of vast sums of money by the hospital.

There can be no shirking of duty on the part of this institution, but the financial burden created by the expense of the treatment given to the victims of the automobile can no longer be borne by many hospitals. Neither the compulsory insurance law of Massachusetts nor the lien law of New Jersey has solved the problem.

The most recent legislative attempt to guarantee fair play to the hospital in respect to the care of automobile accident victims has been made in the state of Ohio. But even this law, encouraging as it is, presents some vital defects. To be sure, it provides for the payment from state funds for the care of indigent persons injured on the state's highways by automobiles. But where settlement is made by the one responsible for the injury the hospital as of yore must collect its bill for care if and when it is able. Moreover, insurance companies may still pay liability claims to the injured and the hospital has no legal redress in collecting.

The private settlement of damage claims has

long worked an unfairness on the hospital, these payments sometimes being made while the patient is still under treatment in the institution. While the Ohio law is imperfect it assuredly opens the way for other states to emulate this praiseworthy attempt to correct an abuse for which in the past there has been no adequate remedy. Congratulations are due to the Ohio Hospital Association for the part it played in securing the passage of this fine piece of legislation.

Limiting Laboratory Examinations

THE number of laboratory examinations performed per patient does not always guarantee intelligent care nor does it suggest that slothful care has been given. Varying from a minimum of two to a maximum of fifteen per admission, these tests may represent a successful attempt to speed diagnosis or a mere confused striving to arrive at the cause of illness.

Laboratory studies are expensive. Collection of specimens is uncomfortable for the patient. Moreover, the visiting physician too often only casually studies the results of a time-consuming and tedious laboratory procedure. He allows his intern to order tests that, while of possible scientific interest, have little bearing on the patient's present illness.

To establish a minimum list of laboratory studies that may be ordered by the intern pending an examination of the patient by the visiting physician appears a commendable policy. It would save the hospital money and the patient inconvenience. "Not less work but more carefully considered laboratory requests" would be a wise slogan for many an executive to adopt.

Plumbing and Amebiasis

AN IMPORTANT lesson to hospitals is contained in the recently published report made by a distinguished committee of public health authorities on the outbreak of amebic dysentery in Chicago. The committee, which consisted of Dr. Albert J. Chesley, Dr. Charles F. Craig, Dr. Morris Fishbein, Dr. Ludvig Hektoen, Dr. Thomas Byrd Magath, Dr. George W. McCoy, Dr. Henry E. Meleney, Dr. F. W. O'Conner, Dr. Milton Portis and Abel Wolmer, made a careful review of the circumstances surrounding the outbreak.

From its study of the epidemiology of the outbreak, the committee became suspicious of the plumbing of the hotels. Examination revealed

that there were three plumbing hazards in the hotels that probably contributed to the spread of the disease:

1. Old and generally defective water and sewerage piping layouts, permitting at least potentially, back siphonage of bathtubs, flush toilets and other fixtures into water lines.

2. Chance breaks in sanitary sewers or heavy overflows of mixed sanitary sewage and storm water drainage inside and outside of the hotel basements.

3. Cross connections of serious character between water and sewer lines or between water lines carrying potable water and water potentially subject to contamination.

The committee recommended an exhaustive and searching study of the whole water and sewage systems of hotels with old plumbing and the immediate correction of any defects that may be discovered in the installation.

There are many hospitals where the plumbing is as old as in these hotels. While it requires special and fortuitous circumstances to bring the hazards of antiquated plumbing into play, penalties are so extremely serious that every hospital with old plumbing should have such a sanitary survey conducted promptly.

A Coroner's Case

CONDITIONS causing death that create the classification of coroner's cases are too well known to justify repetition. In the course of a year, however, many deaths are referred to the coroner because of the existence of trauma sustained either outside the hospital or, more rarely, within its walls. The real cause of death is not infrequently shrouded in a maze of ignorance and red tape, although it is the purpose of the coroner's office to discover evidence of foul play or of unethical medical practice.

The coroner himself, rarely a physician, appears often to consider the political aspects of his office of greater importance than either the legal or the scientific. The inquest is frequently a hollow mockery characterized by the solemn pronouncement by a dozen ignorant jurymen that the patient (so they were told) died of heart disease.

Yet, while hospital postmortem statistics suffer greatly because of the reference of so many cases to the coroner, this official acts in a way as the institution's safeguard. Hence the hospital shows its good faith by promptly reporting such cases as legally fall into this class.

Granting this fact, it is yet difficult to understand why every patient dying in less than twenty-

four hours after admission should be so reported. "Would be far more reasonable if in every community the local hospital were requested by the coroner to do a necropsy on every case referred to him and thus to determine carefully the true cause of death. The institutional necropsy percentage would under this plan be measurably elevated and the ends of justice would be served to a degree not often the case at present.

Golden Silence

"**H**OSPITAL Zone. Unnecessary noises prohibited." This is the admonition that appears before thousands of hospitals throughout the country. But the rattle of flat wheeled street cars over uneven rail joints continues unabated. Autos honk, whistles blow and the nerve racking jumble of city noises never ceases.

Frequently the hospital itself sets an example that those outside apparently are endeavoring to emulate. Halls reverberate with the voices of workers who forget they are not at a social gathering. Corridors and waiting rooms, innocent of soundproofing, exaggerate the vocal nuisance. Heels without soundproofing clatter down terrazzo corridors, utensils clash and doors slam because of the carelessness of poorly trained personnel. In one city institution a whistle of unusual dimensions and power calls and dismisses workers several times daily. In another, loudspeakers in each room make the nights and days hideous in true apartment house style.

Quietude, repose and a jazzfree atmosphere are surely aids in restoring to health tired and ailing bodies and minds. The executive who does not bear this in mind is failing to appreciate the finer points of good administrative work. Silence is golden—it is also an extremely valuable therapeutic agent.

Budgeting for Free Service

THE hospital cannot expect to be paid for each day of free service that it renders. Its executive must not adopt an attitude that leads him strenuously to avoid accepting any patient who cannot pay for care. Endowments are usually intended by their generous donors to be used for just this purpose. Moreover, the voluntary hospital has no right to indulge in extravagances that make the granting of free service impossible. Only the proprietary institution may with justice assume this attitude.

By the same token, however, no hospital has a right to dispense charity with such a free hand that a deficit accumulates with no reasonable hope of meeting it. To do so is an act of ruinous folly. The annual budget should show with reasonable certainty the amount likely to be available for the care of free patients. This sum may be converted to days of service and these apportioned to each month of the year. If greater demands are made upon the hospital than those for which provisions have been made in this budget, then the need for additional funds should be put flatly up to the community.

To permit the delivery of hospital staples and supplies which cannot be paid for is unfair to the merchant who, by filling the institution's order, is acting in good faith. Hence to budget for free service is to protect the good name of the hospital by maintaining its credit both economically and ethically.

What Is the Real Need for Special Nursing?

IN DUBIN'S article elsewhere in this issue, striking data are presented on the use of special duty nurses in Mount Sinai Hospital, Chicago.

Through a special fund, ward patients in this hospital are given special duty nursing whenever, in the judgment of the attending physician or the chief resident, their medical need justifies it. Private patients, who can if they wish avail themselves of almost exactly the same floor duty nursing as the ward patients, nevertheless used about twenty times as much special duty nursing service. Apparently even during the depression many private patients are using special nurses as a luxury.

These figures hold much of interest to nurses, to hospital superintendents and to those who are administering group hospitalization plans. Before definite action is taken on the basis of these data, however, it would be helpful if similar studies were made at other hospitals. These results do not agree with the standards worked out by Lee and Jones for the Committee on the Costs of Medical Care. Dubin's data indicate that only 33 of each 1,000 hospitalized patients really need special nursing while Lee and Jones put the figure at 578. The difference, of course, may be wholly or in large part explained by the high quality of floor nursing that is provided at Mount Sinai Hospital. In any event, further studies would certainly be welcome and helpful.

A Study of Dispensary Use and Abuse*

Dispensary abuse is a perplexing problem. It is next to impossible to set up standards to differentiate between worthy and unworthy patients. Doctor Doane discusses today's dispensary problems and tells the results of a study made recently of the social status of 700 dispensary patients in an Eastern hospital

By JOSEPH C. DOANE, M.D.

Medical Director, Jewish Hospital, Philadelphia

THE February number of The MODERN HOSPITAL contained a description of the origin and of the needs that actuated the organization of the first dispensary in the United States—the Philadelphia Dispensary. It is proposed here to discuss some of the practical dispensary problems of today.

It will be recalled that in 1786 the hospital idea was just beginning to take root. The public of that day was not hospital minded. A stigma was attached to the hospital that prevented all but the extremely poor from seeking its services. Few persons were convinced that it was wise, or even safe, to enter a hospital unless some dire emergency existed.

The first hospital was equipped with few of the physical necessities for the care of the sick, and little provision was made for the treatment of those who were not confined to their beds. The first dispensary was organized as a protective measure to save the patient from going to the hospital. It existed as an entirely separate and distinct undertaking. It was maintained by private contributions and its chief purpose was the treatment of ambulatory patients in the dispensary and of those who were confined to their homes by ill-

ness. During the past century and a half there has existed in many cities in some form or other a medical service to the poor such as that which had its inception in the visiting of the patient in his home by the first dispensary doctors.

There were relatively few trained physicians in the late eighteenth century upon whose services early hospitals and dispensaries could call. Most physicians of that day received their education as apprentices to older physicians who had been educated in Europe. The need for the training of practitioners of medicine soon became apparent and as early as 1750, the first lecture in anatomy was delivered in this country by Doctor Cadwalader, a Philadelphia physician. What is now the medical department of the University of Pennsylvania, after considerable personal and professional misunderstanding among the doctors of the day, graduated its first class of ten physicians in 1768.

The customs and practices of the early hospitals and dispensaries cannot be discussed intelligently without referring to the general status of medicine of their day. Very few of the standard drugs were freely used at that time. Mercury, the iodides, arsenic and other heavy metals were commonly employed. Bleeding and sweating were measures thought to be helpful in many types of disease. The pharmacy shelves of the dispensary and hospital did not contain the scores of costly and often rather ineffective drugs that are so conspicuous now. Competition in the practice of medicine was at a low ebb. The doctor had many patients, but few of them were able or willing to pay him for his services. Free patients were the rule in hospitals and dispensaries.

Hospitals Have Been Too Generous

As competition increased and as the expense of preparing for the practice of medicine became greater, the physician's attention focused upon what he considered an unfair use of the medical facilities provided by the public. In fair economic weather the abuse of the dispensary does not loom so large to the physician and to the hospital as it does during times of financial readjustment. Until unemployment and financial distress affected them, neither the hospital nor the physician sorely needed the funds derived from the lower income classes.

In past years the hospital perhaps has dispensed its costly medical services too generously. It must

*Practical Administrative Problems Series.

now retrench. The physician who was inclined to scorn small fees for office visits is now glad to accept a minimum recompense for his services. The office patient who cannot meet even these small charges has sought the dispensary, and frequently the erstwhile private room patient is now seen in the public ward. Hence, a great hue and cry has been raised that the dispensaries are competing unfairly with the physician and that hospitals are not protecting community physicians because they accept patients for free care without proper social service investigation.

Here Are Some Basic Truths

There is little question that these contentions of the doctor are sometimes true. The exact extent to which dispensary abuse mulets the institution and the physician, however, is a question. Whatever its proportions, the term "dispensary abuse" has become the shibboleth that has served as a battle cry for the protection of the doctor's rights. None can express in definite terms the extent to which it exists or the remedy for the ill itself.

Let us examine the situation as it exists throughout the hospital field. The statement of a few basic truths may be helpful.

1. Some hospitals are making no attempt to prevent the undeserving from securing medical care at too low a cost. These hospitals need the income and are devoid of scruples as to the method of procuring it.

2. Diagnostic clinics, while less popular than formerly, still persist here and there. When improperly conducted they compete unfairly with the physician.

3. Social service departments cannot be blamed for dispensary abuse unless sufficient personnel is

provided to scrutinize carefully the social background of all patients.

4. Home visits to each new dispensary applicant probably would exceed in cost the amounts collected or the expense avoided thereby.

5. No human being possesses a sufficiently keen perception to avoid ever accepting patients for treatment who really can and should pay.

6. No dispensary should withhold emergency or even moderately needed treatment while quibbling over the payment of the usual small fee.

This expresses briefly some of the facts and general principles of dispensary practice which few persons will question. There are no standards that can be laid down to differentiate effectively between the worthy and the pretender. The dispensary physician is likely to judge the social status of the patient from the appearance of his clothing or from the fact that the applicant for treatment arrives in a motor car. These criteria are often misleading. The social worker determines the worthiness of the applicant through her knowledge of human nature and through her skill in compiling case histories. Both the physician and the social worker err frequently, the latter possibly less often, because of her special training.

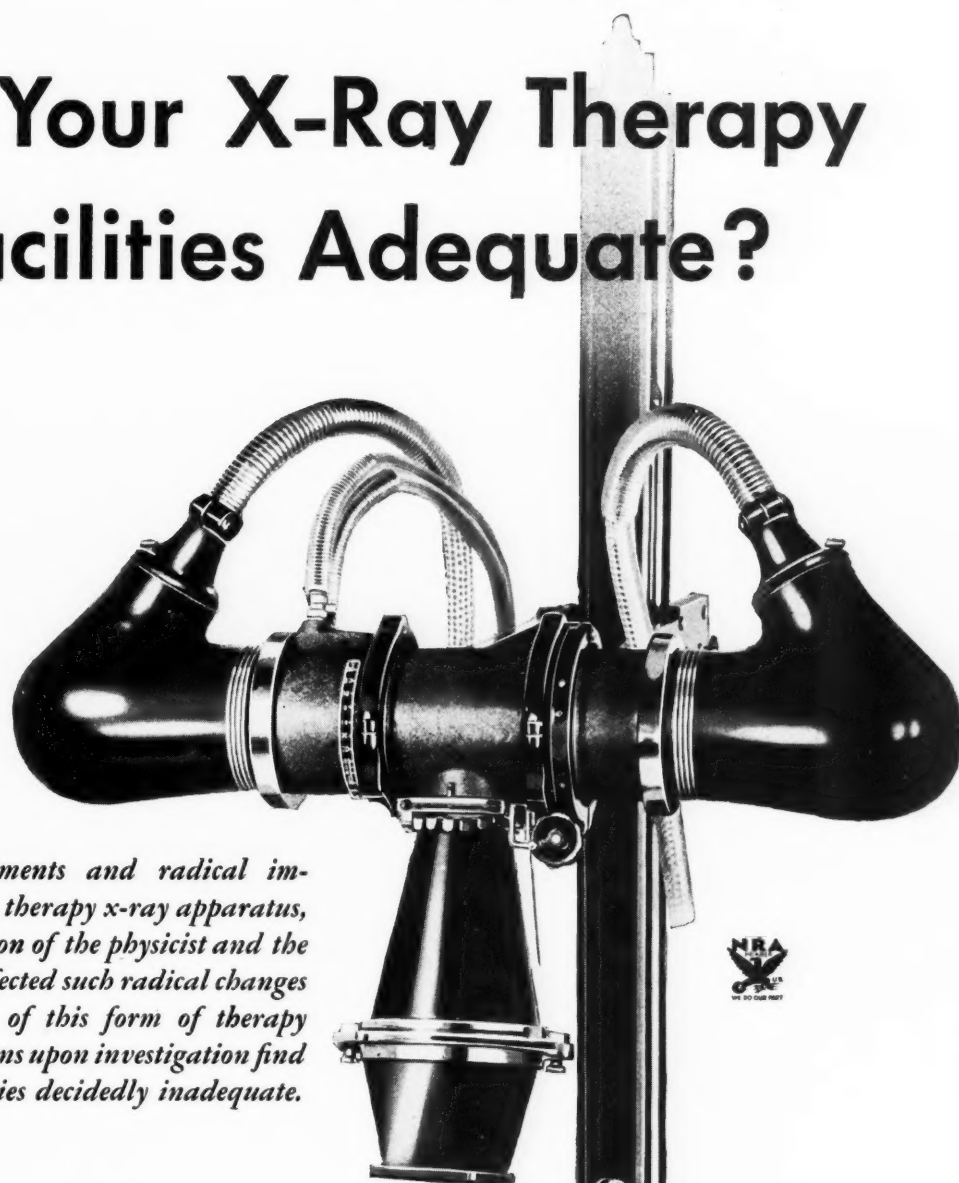
A number of hospitals have conducted independent studies of a cross section group of dispensary patients in order to devise standards for themselves and thus to develop a system of social diagnosis that will prevent dispensary profiteering. These attempts have originated because of staff insistence that an abuse of great proportions existed, and also because the number of dispensary applicants had outgrown the hospital facilities.

A study conducted recently in an Eastern hospital may serve as an example of the type of

TABLE I—FAMILY SIZE RANGES FROM TWO TO NINE PERSONS EARNING \$13 TO \$20 A WEEK

No. in Family	Remarks	No. in Family	Remarks	No. in Family	Remarks
5	Needs eye examination and treatment	9	Referred to genito-urinary clinic	6	Irregular income. Patient diabetic
5	Work irregular	4	Referred for nose and throat treatment	5	Pediatric care. Father's work irregular
3	Supporting parents	4	Needs eye treatment	5	Referred for skin treatment
4	Accident. Sent to eye clinic	2	Supported by relative until recently	5	Referred by staff doctor
7	No money for private care	9	Referred for orthopedic examination	5	Referred for eye treatment
5	Resumed work for one month	5	Irregular income	8	Worked for past six months only
3	Referred by physician for tonsillectomy	4	Born in hospital. Well baby	5	Referred to skin clinic
2	Sent by employer to eye clinic	4	Urgent need of dental care	6	Referred to orthopedic clinic
5	Referred by physician for circumcision	5	Patient has exhausted funds	4	Left private doctor. No more money
2	Referred for surgical follow-up	4	Unemployed. Debts	3	Referred by doctor for basal metabolism study
5	Referred by doctor for tonsillectomy	5	Referred for tonsillectomy	6	Referred to orthopedic clinic
5	No money for private care	5	Referred by doctor to orthopedic clinic	5	Referred by staff doctor to orthopedic clinic
4	Income irregular	4	Unemployed until recently	5	Dental care urgent
7	No money for private care	4	Needs pediatric care. Family recently evicted		
4	Referred for teeth x-ray				
6	Referred to diabetic clinic				

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TABLE II—FAMILY SIZE RANGES FROM TWO TO ELEVEN PERSONS EARNING \$21 TO \$30 A WEEK

No. in Family	Remarks	No. in Family	Remarks	No. in Family	Remarks
7	Had to give up private doctor	9	Referred from hospital for dressings	6	Helping unemployed relatives
4	Unemployed for one year, until recently	2	Has spent everything in going to skin specialist	6	Born in hospital. Father's work irregular
5	Referred by staff doctor for tonsillectomy	5	Referred by a staff doctor	8	Owes a large doctor bill
4	Accident case to surgical clinic	5	Referred by a doctor for tonsillectomy	4	Accident case. Just started to work
4	Emergency dental care	2	Just started to work	7	Reemployment for five weeks. Out of work for three years
4	Accident ward to surgical clinic	4	Have just finished paying a large doctor's bill. Cannot continue	3	Accident case. Unsteady work
6	Not enough money for private care	5	Many debts from unemployment	8	Much illness in family. Cannot afford private care
5	Referred for genito-urinary treatment	9	Needs eye treatment. Many debts from unemployment	4	Cannot afford specialist
6	Hospital case for follow-up care	6	Reemployment for two months	2	Recently secured work. Out of work for two years. Debts
4	Referred by school for dental care	11	Urgent need of dental care	5	Financial difficulties. Lost home
4	Could not afford to go on with doctor at \$3 a treatment	4	Cannot afford eye specialist	8	Accident case. Needs care. No money
4	Accident case to eye clinic	5	Referred by doctor to orthopedic clinic	7	Referred for genito-urinary treatment
6	Work irregular				

inquiries made and of the conclusions drawn therefrom. The social backgrounds of 700 patients who applied for dispensary treatment during a period of one month were investigated. The first question asked by the investigator was why did the patient come to the dispensary? This usually elicited the reply that he could not afford the fee of a private physician. Many patients stated that they had never visited an out-patient clinic before and referred to better days characterized by visits to specialists and the occupancy of private hospital rooms. This was often followed by a story of unemployment, with resulting debt and dependency upon friends, family or a relief agency. In the case of many patients the burden of meeting carrying charges on a home which they were endeavoring to buy was the proverbial straw that made dispensary patronage necessary.

Sometimes patients who had looked to a family physician for care now sought the hospital because they either owed for past medical services and hesitated to impose further upon the doctor or else they had always paid for each visit and could not do so at present. This group also contained persons who might be able, for example, to pay \$1 for an office visit, and yet who could not pay almost as much for medicine. Some patients appeared to be making a real effort to avoid asking for public relief, but they could not afford even a small dispensary fee.

Of the 700 patients studied, 426 patients, or 60 per cent, stated that they could not afford the services of a private physician. In an endeavor to confirm or disprove this statement a study was made of the size of the family, the total income, the rent factor and other living expenses, and the source of income. In 34 per cent of this group the

family consisted of three or less persons, in 52 per cent of four to six persons, and in approximately 14 per cent of seven persons or more. Thirty-four per cent of this group had no income at all and for 19 per cent of the group the income was under \$12 a week. In 39 per cent of the cases the rent cost was less than \$25 a month.

A study of this large group shows that either the family obligations were large and that little or no income was available, or that some other overwhelming obstacle existed which prevented payment for hospital or medical care. Many of these persons had consumed their savings or because of illness or unemployment were unable to provide for the physical necessities of life.

In the next largest group, which consisted of 145 patients, or approximately 20 per cent of the total, the same disproportion existed between family obligations and income. It was the custom in this particular institution to refer fracture cases seen in the accident ward to the dispensary for further dressings. These patients do not present a financial problem, although it is a matter of policy whether it is advisable that the treatment begun in the hospital should be followed through in a dispensary. Of the entire group of 145, 9.5 per cent were patients referred to the hospital by physicians for study in special clinics. These patients had been adjudged by their family physician as in need of diagnosis and treatment by specialists and were in reality the type of patient who in better times would be referred to a colleague. Of this group, 2.4 per cent stated that they felt themselves in need of a specialist, whose services they could not afford.

In some instances patients with family physicians, and who were treated in the hospital for



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injuries sustained in an accident, returned to the dispensary for the removal of stitches or to have a dressing changed. It is only fair for the hospital to require the accident ward patient to pay a fee to his family physician for a redressing rather than allow him to return to the dispensary. This, of course, presupposes that the hospital will take the trouble to communicate with the family doctor so as to prevent the patient from neglecting himself. The physician is fully capable in most instances of rendering the necessary services.

Almost any physician is glad to continue to serve former paying patients even though they are temporarily unable to recompense him. It would seem good business for him to do so. One of the chief needs at present is to provide care for the type of patient who requires a specialized service which cannot be supplied by the family physician and yet which need not be provided by the hospital dispensary. This has been done in some instances by securing an agreement from the ophthalmologist, the dermatologist and others to examine and treat such patients in their private offices for a minimum fee. The family doctor thus is able to keep in contact with his patient, who is not permitted to stigmatize himself.

It has been remarked that it is impossible to lay down standards whereby it will always be possible to judge the fairness of an application for dispensary care. This is due to the many factors that affect the individual and his ability to pay. For example, a man with a small income and no family obligations is less likely to deserve dispensary treatment than a man with a considerably larger income who has a much greater legitimate expense.

Conclusions Reached From the Study

The data in Table I and Table II illustrate family obligations and weekly earnings. These data indicate that the net earnings of a family, not the gross earnings, really depict its ability to pay for hospital care. All of the reasons given by patients for coming to the dispensary cannot be considered as wholly satisfactory, and these data are cited simply to illustrate the personal circumstances that determine the patient's application for care. The following conclusions have been reached as a result of this study.

While the amount of abuse was rather small, there were a number of cases that were rightfully referred to their private doctors. The claim of 60 per cent of the group studied that they could not afford a private physician seemed justified to the investigator. A considerable number of the 20 per cent who were referred from the accident ward to the dispensary might have been sent to their private doctors for redressing. All of the 10 per

cent referred to the hospital by physicians for specialty clinics should have been accepted. A number of the 2.4 per cent who stated that they needed specialty treatment but could not afford a private physician might have been referred to a specialist, had some understanding been reached as to a minimum fee. Some of the statements concerning income, rent and size of family might have been disproved if home visits had been made.

The study indicates that patients visit dispensaries for three main reasons:

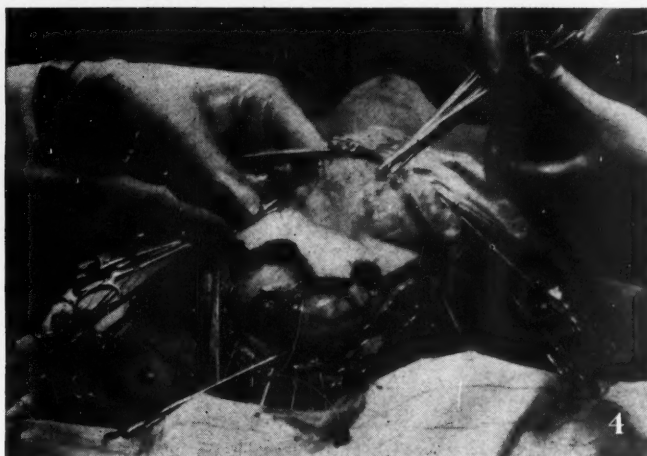
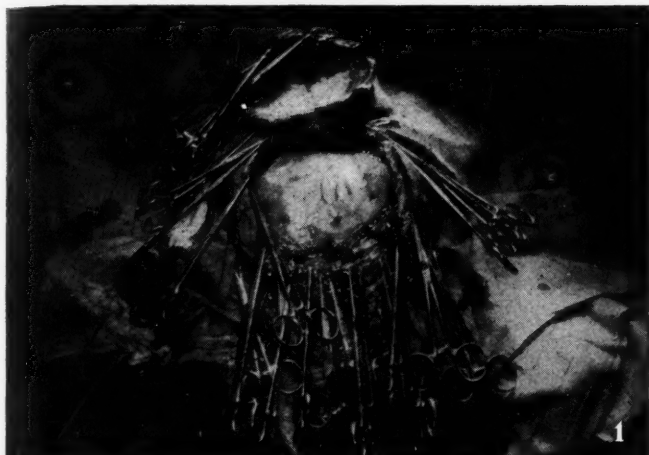
1. They cannot afford to patronize a private doctor.
2. They have greater faith in the dispensary because of the reputation of the hospital.
3. They endeavor to avoid the payment of a fair fee to a doctor which they are amply able to meet.

Attempts Made to Solve the Problem

Many institutions have attempted to solve this problem. In some instances a part or all of the following requirements are insisted upon:

1. A sworn statement as to the patient's financial ability to pay.
2. Patients who have not had a private doctor in the last five years are accepted for care without question.
3. Patients who have visited a private physician in the last five years are accepted for emergency care only and their names are telephoned or mailed to this physician, who is given a reasonable time to notify the hospital whether or not he will accept them for further care.
4. Patients are not permitted to leave one clinic and visit another without permission of the dispensary authorities.
5. Indigent or part-pay patients who refuse to go to private doctors are neither coaxed to do so nor refused treatment in the dispensary.
6. A new patient is not accepted without a written statement from his family physician, his clergyman or a reputable citizen of the community certifying as to his need for free treatment.

There is no general agreement as to the efficacy or fairness of all of these requirements, but the enforcement of the principles of fair play insofar as possible is a wise policy. The hospital executive should endeavor to deal justly with all persons who apply for help. He should bear in mind the article of faith laid down by the founders of the Philadelphia Dispensary: "The sick may be relieved in a manner perfectly consistent with those noble feelings of the human heart which are inseparable from virtuous poverty." It is better by far that ten patients should impose upon the dispensary than that one patient should suffer because of too rigid rules or unintelligent enforcement of the rules.



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A Practical Plan for Storing and Handling Barreled Liquids

THE standard of cleanliness in an institution is greatly affected by the tidiness or the untidiness of the rooms set aside exclusively for the use of the employees.

The dispensing portion of the pharmacy at the University of Chicago Clinics was studied in relation to this theory.

For a number of years barreled liquids in the pharmacy were placed on racks in the rear of the room as shown in Fig. 1. The obvious waste of space, the lack of system and the inevitable accumulation of filth resulting from leakage and the inaccessibility of areas to be cleaned, led to a definite lowering of morale among many of the pharmacy workers.

An apparent solution of the problem was proper arrangement of the barrels, a thorough housecleaning and insistence of the proper maintenance of the room. Inasmuch as all the barrels under consideration contained fluids it seemed feasible to build a rack that would hold a number of barrels of uniform size and capacity. The new rack is shown in Fig. 2. This rack provides orderly storage for twelve barrels in the floor area formerly required for only four barrels.

Bids were requested for construction of the rack. There was a choice of a pressed steel sectional rack costing from \$90 to \$150 or a one-piece welded construction rack, such as is illustrated in Fig. 2. The pressed steel rack was the more expensive of the two, and another objection to it was the possibility of the bolted joints becoming loose. The welded type of rack was not only about 50 per cent cheaper but it also obviated any possibility of a shakey structure. Consequently, this type was chosen.

The vertical risers of the rack are of one and one-half-inch pipe and the horizontal bars, one inch, with clips to hold the barrel in place. Black iron pipe was used as it is less expensive than galvanized pipe, permits easier fabricating and holds paint better than the galvanized product. The clinics engineer was consulted regarding the

safety factor, to make sure that the proper floor load would not be exceeded.

The welder supplied all the necessary material, including the pipe, cut to the proper lengths, and over a week-end brazed the joints, since welding would cause too much distortion. Both ends of the vertical pipes were cut with long threads and the rack was securely wedged between the concrete ceiling and the floor by means of pipe flanges. The



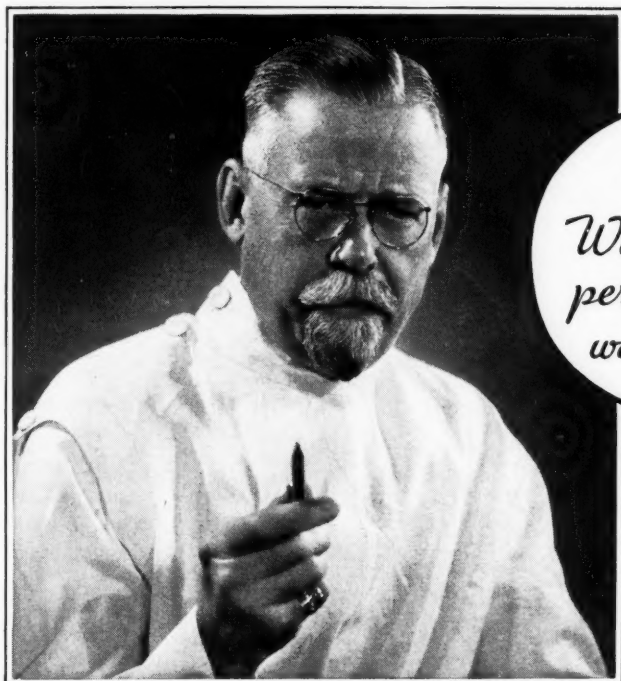
Fig. 1. Barreled liquids were formerly placed on racks. The lack of system and the resulting untidiness tended to lower personnel morale.

rack was covered with a coat of black acid resisting paint.

In order to secure uniformity in size and capacity, clean empty alcohol drums were gradually accumulated for all but two of the barrels. A set of gauge-glass fittings with cut-off valves to prevent loss of fluid in case the gauge glass should break was brazed near the opening in each end of the drum. It is not advisable to store antiseptic solutions in metal drums and so stout oak kegs are used for this purpose.

Barrels in the upper row are drained through pipes to the bibcocks. This permits easy handling and reduces waste.

The remaining problem was to devise a method



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Fig. 2. This new rack provides orderly storage for twelve barrels in the floor space formerly required for only four barrels.

of refilling the barrels without removing them from the racks. The old principle illustrated in the common wash bottle was employed. In the case of the wash bottle the operator blows into the short tube, as shown in Fig. 3, and the air pressure forces the water out through the long tube. The same principle is used in the barrel filling device shown in Fig. 2. The air passes through the reducing valve (shown on the right and just below the drum marked *Liquor Saponis*) and then to the filling attachment in the barrel on the floor. Fig. 4 shows how the air enters the tee and, as in the wash bottle, exerts its pressure on the contents of the drum, thereby displacing the fluid through the long pipe which reaches to the bottom of the drum. The outlet hose from the attachment may be placed in the top of the barrel, as shown in Fig. 2, or it

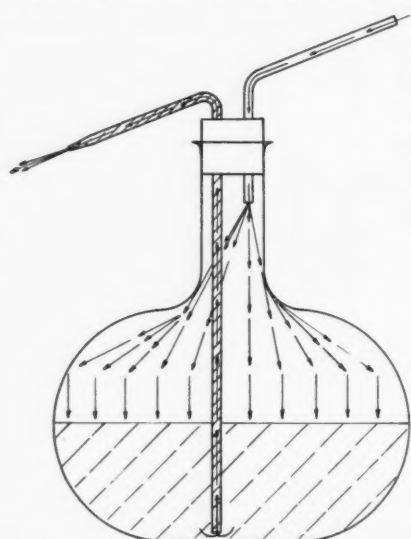


Fig. 3. The common wash bottle principle was employed for refilling the barrels without removing them from the racks.

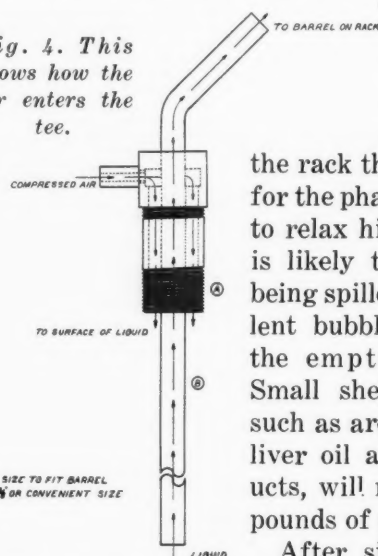
method is probably preferable because there is no danger of the hose falling out.

The compressed air from the central storage tank enters the pharmacy under a pressure that varies from 30 to 65 pounds per square inch. It then passes through the reducing valve to a constant output pressure of six pounds per square inch. (This reducing valve is nothing more than an automatic expansion valve made for domestic refrigerating machines.)

The technique for filling the drum is simple. The operator simply screws in the attachment, connects the air hose, and places the outlet hose in the barrel on the rack. The air is then turned on and, since the pressure can at no time exceed six pounds, no further attention is needed until the drum on the rack is nearly full, which can be noted from any point in the room by means of the gauge.

Two notes of warning should be sounded. (1) When the drum that is being emptied contains more fluid than is required for the drum that is being filled, close observation is required in filling the last six to eight inches. When the drum that is

Fig. 4. This shows how the air enters the tee.



being emptied contains less fluid than is required to fill the barrel on

the rack there is a tendency for the pharmacy technician to relax his vigilance. This is likely to result in fluid being spilled, due to the violent bubbling of air from the emptied drums. (2) Small sheet metal drums, such as are used to ship cod liver oil and similar products, will not withstand six pounds of pressure.

After six months' experience it has been found that the barrel rack project and the filling attachment have made good all the original claims and several additional advantages have resulted. These are: (1) a 200 per cent increase in storage capacity for barreled liquids; (2) rapid dispensing of barreled fluids; (3) great labor saving in handling these liquids; (4) reduced danger of injury to employees who handle barrels; (5) increased ease of taking physical inventory; (6) accurate knowledge of barrel contents; (7) marked improvement in the morale of employees, and (8) substitution of system and cleanliness for chaos and filth.

WILL ROSS

HOSPITAL MERCHANDISE NEWS

WILL ROSS, INC.

WHOLESALE HOSPITAL SUPPLIES

MILWAUKEE, WIS.

TIME TO THINK ABOUT SPRING REPLACEMENTS

WINTER'S on the wane. Let's get rid of the worn, drab, abused furnishings and equipment that have been such a burden to our spirits the past few months. Here are a few selections from our catalog that should appeal to you from a quality and price standpoint.

Hotel Finish Silverware

Combining beauty, durability and value. 18% nickel silver heavily silver plated.



S-11050-M—Covered Soup Cup with two handles; 9 oz. capacity. Graceful design. Price includes cover
Dozen, \$22.50; each, \$2.00.



S-1136-8M—Covered Vegetable Dish, 4½" diameter, holds one portion. Complete with cover as illustrated.
Per Dozen, \$31.20; each, \$2.90.



S-1111-3M—Set complete as illustrated \$8.85. Sold separately: Pot (10 oz.) each \$5.00; Creamer (4 oz.) each \$2.60; Covered sugar (4 oz.) each \$2.60. Dozen lots or more in sets or pieces, deduct 10% from above prices.

Delightful table service, modern in design, bright and cheerful, yet reasonably priced.



Bedside Lamp

Who wouldn't enjoy the sparkling contrasts of this black and chrome lamp with its neat parchment shade. Well made, serviceable. Priced to fit stringent budget requirements.
LT 476-M Each \$1.35



Hobnall Glassware

A welcome departure from the ordinary "institutional" glassware that serves only a utilitarian purpose. This is not only utilitarian and inexpensive. It is distinctive. And the simple, glazed-on, red band decoration lends character.

	Per doz.
S-733-M 8½" plate.....	\$1.50
S-734-M Cups	1.22
S-735-M Saucer	1.22
S-736-M Plate 6½"	1.22
S-737-M Foot Goblet.....	1.39
S-738-M 9 oz. Tumbler.....	.83
S-739-M 5 oz. Fruit Juice.....	.72
S-740-M Sherbet or Dessert.....	1.33

10% less in case lots

Water Pitcher

Extreme simplicity marks this neat, little water pitcher. White pottery of good quality. Practical and serviceable.
S-741-M
Each, \$1.00



Bedside Lamp

Here is another black and chrome bedside lamp as beautiful as its companion at the left. It is an excellent example of the beauty modern art has discovered in simple lines.

LT 477-M Each \$1.35

Water Sets

S-902-M — One pint glass bottle with 6½ oz. tumbler that rests over top of bottle. Crystal only. Set: dozen \$3.00.



Dessert Set

S-913-M—Sherbet dish and 6" plate. Crystal clear glass. Per dozen sets, \$1.25; per gross sets \$13.50.



Creamer and Sugar

S-17575-M — Pottery. Quaint design. Capacity 3½ ounces. Colors: Geranium, yellow, rose and turquoise. Per dozen sets \$5.50; per set 50¢. Each piece sold separately at half price.



Bargain In Tumblers

53¢ per dozen

L-800-M

Special for March only — Popular, barrel shape. Good weight and quality. 7¼ ounces. Case lots (6 doz.) per dozen, 53¢

New Curtains Will Brighten Up the Rooms



L-61-M—A sheer Voile of good wearing quality. White, Cream or Suntan. Wide selvage on both edges. Approximately 44 yards to bolt.

	Color	White
38½" width—	38½¢ per yard	34½¢
50" width—	57¼¢ per yard	48¢



L-68-M—Wide mesh serim. White, Cream or Suntan. Airy, yet of sufficient weight to give character. Long wearing. Approx. 45 yds. to bolt.

40" width—	23¢ per yard
50" width—	38¼¢ per yard

 MAINTENANCE, OPERATION AND EQUIPMENT

An Accurate Check on Food Costs

By WALTER E. LIST, M.D.

Superintendent, Jewish Hospital, Cincinnati

THE monthly reports of the dietary department depend much upon the viewpoint of the hospital administrator as to how much detail he believes is necessary to tell him the full story of the economical operation of this department. Monthly reports should give a picture of the activities of the month as to costs, offering a comparable basis against various months in various years.

Food costs and their distribution depend upon the type of service involved in the kitchen. In other words, the layout and the mechanism of the distribution of food must be given consideration. In many instances, the system used for the comparison of food costs among various institutions does not always furnish an accurate basis for comparison. I have preferred always to have general headings, as portrayed in the accompanying report, and to group under these headings the entire total of expenditures. This gives me a clear-cut picture. The method may be of little value to institutions wishing to compare individual meal costs.

In the Jewish Hospital, we have central control.

All meals and nourishments are served from the central department, and no diet kitchens are maintained on individual floors. In institutions maintaining separate kitchens for private patients, semiprivate patients and ward patients, costs in these forms of kitchen control can be determined easily. With a single kitchen in which the meals for the entire institution are prepared, however, I question the value of determining the individual, special or medicinal tray costs.

Turnstile Used in Employees' Cafeteria

We have a central purchasing, stores and requisition system. All supplies are issued only on purchase order or requisition. Requisitions are priced and analyzed by the storeroom clerk. These figures are placed on the duplicate, which is returned to the department that ordered the supplies. This system makes it possible for the department head to keep accurate account of her supplies as she receives them.

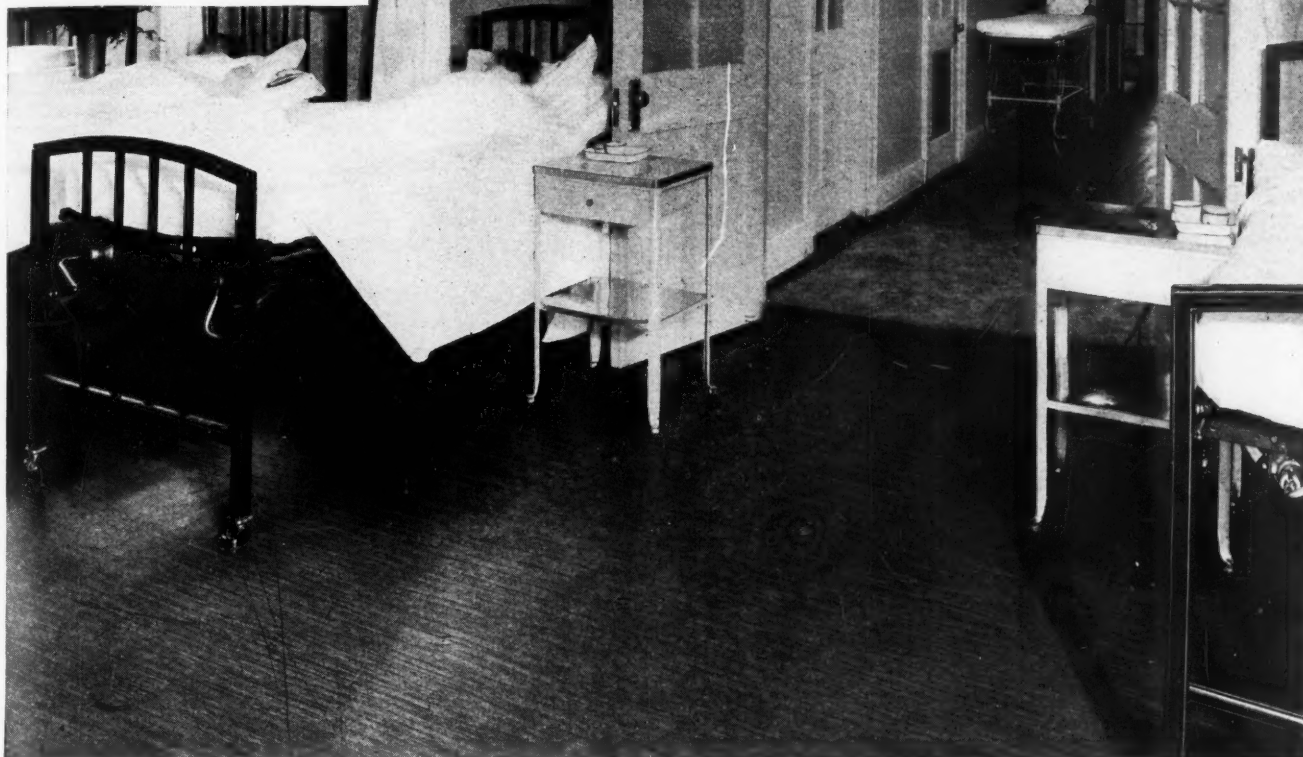
Labor cost is obtained from the pay roll and fur-

TABLE I—REPORT ON DIETARY DEPARTMENT COSTS FOR DECEMBER, 1933

	Dec. '33	Nov. '33	1933 to date	Dec. '32	1932 to date	Budget to date
EXPENSES						
Salaries	\$ 2,104.25	\$ 2,031.45	\$24,967.48	\$ 2,143.19	\$27,256.95	\$26,835.00
Supplies (not food)	179.60	312.12	3,214.38	245.87	4,273.40	4,200.00
Food	4,163.29	4,255.53	44,120.47	3,889.18	51,331.89	46,200.00
Fuel	96.26	93.75	1,084.00	83.25	1,046.04	1,050.00
Repair and Replacement	10.94	182.16	888.72	19.50	988.91	1,000.00
Total	\$ 6,554.33	\$ 6,875.01	\$74,275.05	\$ 6,380.99	\$84,897.19	\$79,285.00
Less:						
Child Guidance Home	110.37	105.58	1,107.68	82.05	1,701.91	1,200.00
Net Expenses	\$ 6,443.96	\$ 6,769.43	\$73,167.37	\$ 6,298.94	\$83,195.28	\$78,085.00
Number of Meals Served	29,837	31,043	350,702	29,354	360,654	
No. Meals Served to Child Guidance Home	501	476	5,214	375	7,097	
COST PER MEAL						
Salaries	\$0.0705	\$0.0654	\$0.0712	\$0.0731	\$0.0756	
Supplies (not food)	.0060	.0101	.0092	.0084	.0118	
Food	.1396	.1371	.1258	.1326	.1423	
Fuel	.0032	.0030	.0031	.0028	.0030	
Repair and replacement	.0004	.0059	.0025	.0007	.0027	
Total	\$0.2197	\$0.2215	\$0.2118	\$0.2176	\$0.2354	

SEALEX*Wall-Covering*

A remarkable new wall-covering that is especially desirable for the hospital. It is quickly installed over old or new walls—with little noise or inconvenience. This wall-covering is washable and sanitary—and insulation against heat, cold and noise. It is fade-proof and crack-proof—never needs to be painted. Many attractive designs in cheerful colors.



Resilient Sealex Linoleum makes a quiet, comfortable floor in the wards and corridors of Newark Memorial Hospital, Newark, New Jersey

Newark Hospital **modernizes with Sealex Linoleum**

Even when modernization funds are limited, do as Newark Memorial Hospital did—specify Sealex Linoleum Floors.

Although moderate in price and inexpensive to install, Sealex is the ideal material for hospital floors. It goes down right over shabby old concrete or wood—the result, modern cheerful floors that are stain-proof and easy to clean.

When Sealex Linoleum or Sealex Wall-Covering

is installed by an authorized contractor of Bonded Floors and Bonded Walls, both materials and workmanship are backed by a Guaranty Bond. One of our flooring engineers will be glad to discuss your modernization problems with you. Write us today.
CONGOLEUM-NAIRN INC., KEARNY, NEW JERSEY

SEALEX
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FLOORS AND WALLS



MAINTENANCE, OPERATION AND EQUIPMENT

TABLE II—REPORT ON DIETARY DEPARTMENT SUPPLIES
FOR DECEMBER, 1933

	Dec. '33	Nov. '33
SUPPLIES (not food)		
Chinaware	\$ 23.61	\$ 79.77
Christmas trees	4.50	
Cleaning	58.72	42.23
Decorations	8.65	
Kitchenware	11.28	7.59
Linen		68.34
Matches	.96	
Office	10.78	8.97
Paper products	60.65	68.78
Silverware		36.48
Spigots	.45	
Total Other Supplies	\$ 179.60	\$ 312.12
FOOD		
Bread and crackers	\$ 196.28	\$ 215.17
Butter	146.42	162.35
Candy	4.61	
Canned goods	419.58	450.65
Cheese	25.21	34.00
Coffee	105.12	108.04
Dried foods	95.07	86.84
Eggs	299.85	485.40
Farinaceous	35.56	34.18
Fish	78.67	76.92
Flour	22.33	27.64
Fruits and vegetables	512.75	414.82
Grape juice		14.40
Ice cream	244.15	232.75
Lard, other fats, salad oil	61.24	86.01
Meat	718.45	687.82
Milk	585.85	595.92
Nuts	16.80	14.70
Orange juice	135.80	136.50
Poultry	332.90	245.35
Spices and extracts	17.41	26.75
Sugar	73.75	71.04
Syrups and molasses	13.14	13.30
Teas	40.70	32.73
Yeast	1.75	2.25
Credits	20.10	
Total Food Supplies	\$4,163.29	\$4,255.53
REPAIR AND REPLACEMENT		
Leather belt		\$ 1.50
Plating silverware	\$10.44	
Repair to hot plates		50.00
Sharpening saw	.50	
Vacuum bottle fillers		130.66
Total Repair and Replacement	\$10.94	\$182.16

nished by the hospital's bookkeeping department.

Fuel cost is determined by a gas meter on the line supplying the kitchen.

Our cafeteria for employees is provided with a turnstile, which counts the number of people served; we keep a record of the number of patients' trays. This gives an accurate count of all meals served.

The attached sample monthly reports are supplied the superintendent, giving him control of the expenses of the dietary department.

Talcum Powder

One division of a hospital had been buying a finely powdered precipitated talcum powder for use on surgeons' rubber gloves and for miscellaneous uses throughout the building. This elaborate talc was costing 18 cents a pound and the yearly consumption was approximately 800 pounds.

The subject was brought to the attention of the person specifying the powder ordered. He emphatically stated that the usual and cheap talc (4 cents a pound) was not good enough. Surgeons complained about the harshness on their hands, it was said, and the life of the rubber gloves was definitely shortened.

Manufacturers of six leading brands of rubber gloves were consulted on this point. All stated that they had never heard the complaints mentioned nor had they any reason to feel that the life of the gloves was influenced by the fineness of the talc.

As a means of determining how much fact and how much arbitrary comment existed in the situation, the following experiment was tried:

Two 25-pound cans of 4-cent talc were placed at the disposal of the person who had specified the more expensive brand, with the comment that this was not the usual 18-cent talc but was a superior grade and a bargain at 12 cents a pound. The buyer was interested in saving every penny and so agreed to buy the talc at 12 cents per pound if it proved as satisfactory or nearly so as the 18-cent material. After the fifty pounds had been used, the buyer stated that there were no complaints and that aside from the absence of perfume, there was no difference in service rendered.

The facts were then laid before him and a charge of 4 cents per pound was entered. This talc has been in service for more than a year and there has not been a single complaint.

This type of experiment is not new. However, it is not employed often enough and should be used to separate real from assumed merit.

Pharmacist Finds a New Use for Churns

The pharmacist in a small hospital has discovered that an ordinary porcelain churn is a valuable piece of equipment. He has added a small motor and a reducing gear and uses the churn for making tincture of green soap and other similar solutions that ordinarily require much time and effort. The pharmacist starts the churn and lets it run while he makes up powders and carries on other routine tasks of his department.

A New Electric Radiator

For use in warmer climates where the nights are a bit cool or where at certain seasons of the year, there is need for a little occasional heat there is offered a new radiant electric radiator. This radiator, 48 inches high and 9 inches wide, supplies heat from heels to head. The heating element is covered with a protective grille finished to match any color.



In acute illnesses

Appetite wanes, digestion is impaired, but energy requirements remain high.

A liberal supply of carbohydrate provides energy and spares protein destruction.

The tolerance for Karo Syrup is high, even in the presence of fever.

Karo Syrup does not overtax the digestion, does not impair the appetite through excessive sweetness, improves the flavor of fruit juices, milk and cereals.

Karo is rich in Dextrins, Maltose and Dextrose—all recommended for ease of digestion and energy value.

FREE TO PHYSICIANS

This convenient calculator of feeding schedules is accurate, instructive and helpful. The makers of Karo will gladly send one to you on receipt of your name and address. Please enclose your prescription blank or professional card.



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17 BATTERY PLACE • NEW YORK CITY

Dietetics and Institutional Food Service

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

A Small Hospital Dietitian Talks About Her Job

By RACHEL E. BALL

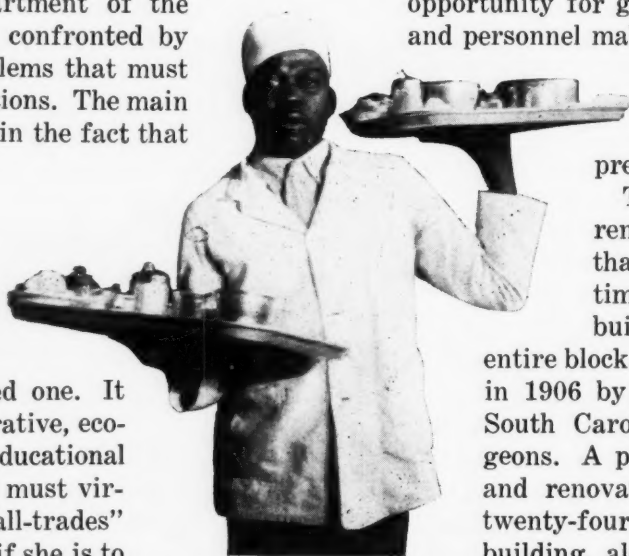
Dietitian, McLeod Infirmary, Florence, S. C.

THE dietary department of the small hospital is confronted by many of the problems that must be met in larger institutions. The main difference probably lies in the fact that these problems must be handled on a smaller scale and by fewer people.

The schedule of the one dietitian in the small institution must of necessity be a varied one. It must combine administrative, economic, therapeutic and educational problems. The dietitian must virtually be a "Jack-of-all-trades" and good at all of them if she is to make a success of her department and her career.

The dietetics course that includes an affiliation period in a small hospital should be the most valuable course for the young would-be dietitian who wishes to prepare herself for a position in a small hospital since the transition from a large institution to a small one is not always easy. Often one must learn by the trial and failure method. The

opportunity for greater contact with patients and personnel makes the work in a small hospital interesting and the dietitian's efforts seem to meet with greater appreciation.



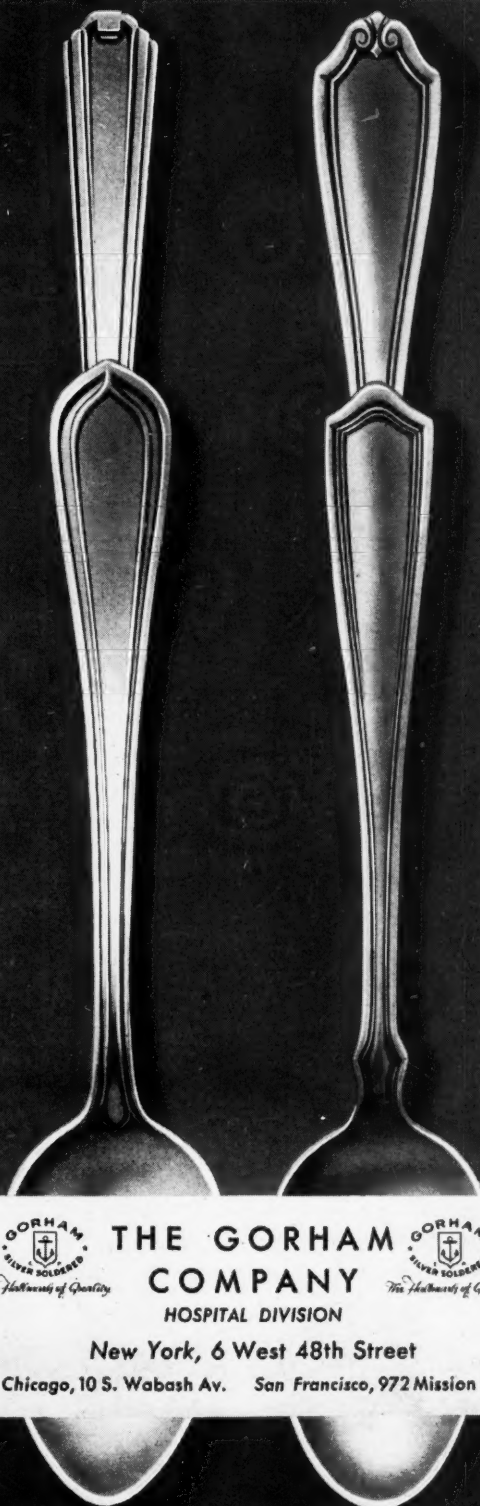
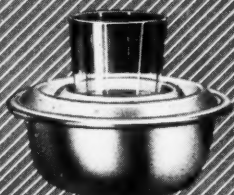
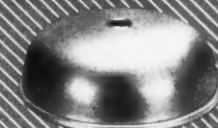
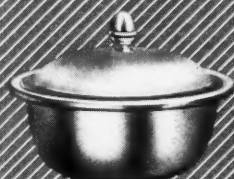
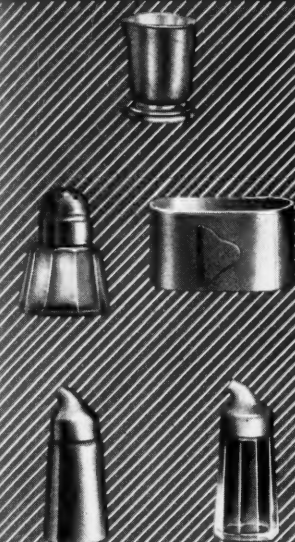
The McLeod Infirmary, Florence, S. C., is made up of units that have been acquired from time to time until the present buildings occupy practically an entire block. The hospital was organized in 1906 by Dr. F. H. McLeod, one of South Carolina's most prominent surgeons. A private home was purchased and renovated to make a hospital of twenty-four rooms. Later the adjacent building, also a private home, was acquired and ten rooms were added to the hospital's capacity. These two buildings were connected by a corridor. In 1917 a large modern brick building was added and that, with a new building for colored patients, brought the bed capacity up to 135. All rooms are private with the exception of four four-bed wards in the colored hospital. However, some private rooms can accommodate extra beds.

Since most dietitians are trained in large hospitals, it is often rather difficult for them to adapt themselves to the very different problems that arise in the dietary departments of small hospitals. With this in mind, it seems advisable to publish from time to time special articles dealing with problems of dietary departments in small hospitals and how they are met, and to emphasize the need for specialized training to prepare dietitians who are to take charge of such departments. Next month Louise Clark, dietitian, Dallas Methodist Hospital, Dallas, Tex., will tell about her work

Gorham

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COMPLETE LINE OF
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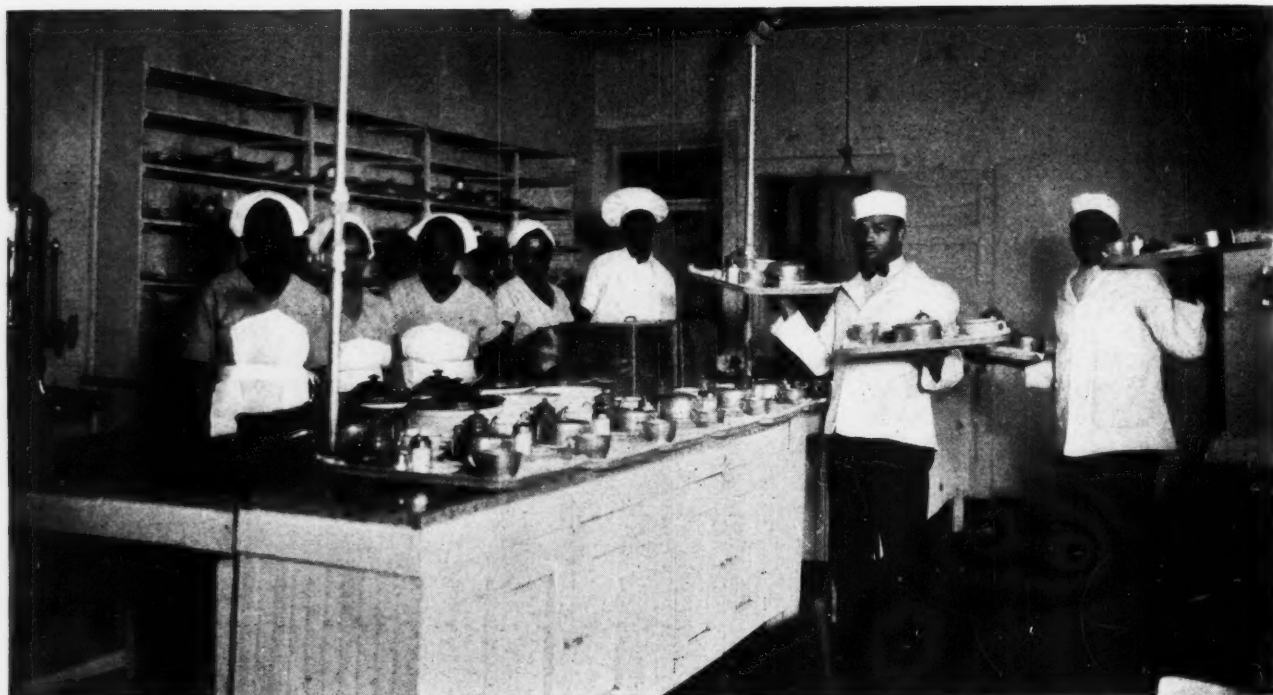
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Two Negro boys carry the trays by hand from the kitchen to the different floors of the various buildings. These boys are experts at balancing one tray on each hand, and an average of two trays a minute are served.

While these buildings are all connected, it can readily be seen that this arrangement presents no mean problem so far as food service is concerned, particularly in getting the food to the patients while it is hot. Several systems of tray service have been tried but only one has been found at all satisfactory.

The dietary department is housed in the rear of the first floor of the oldest building, which is situated between the other two buildings for white patients and directly in front of the hospital for Negro patients. The food for all patients and employees is prepared in one kitchen and central service is used for all except the Negro patients.

Two Negro boys carry the trays by hand to the different floors of the various buildings. These tray boys have with training and experience learned to balance one tray on each hand perfectly. They move rapidly and can carry two trays each to the third floor of the building farthest from the kitchen in three minutes, to the second floor in two minutes and to the first floor in one minute. Thus an average of two trays per minute are served. The entire department assists in serving the trays so as to get them to patients as quickly as possible. Food and dishes are hot when the trays leave the kitchen so that food is only slightly cooled when it reaches the patients. There are few complaints about cold food.

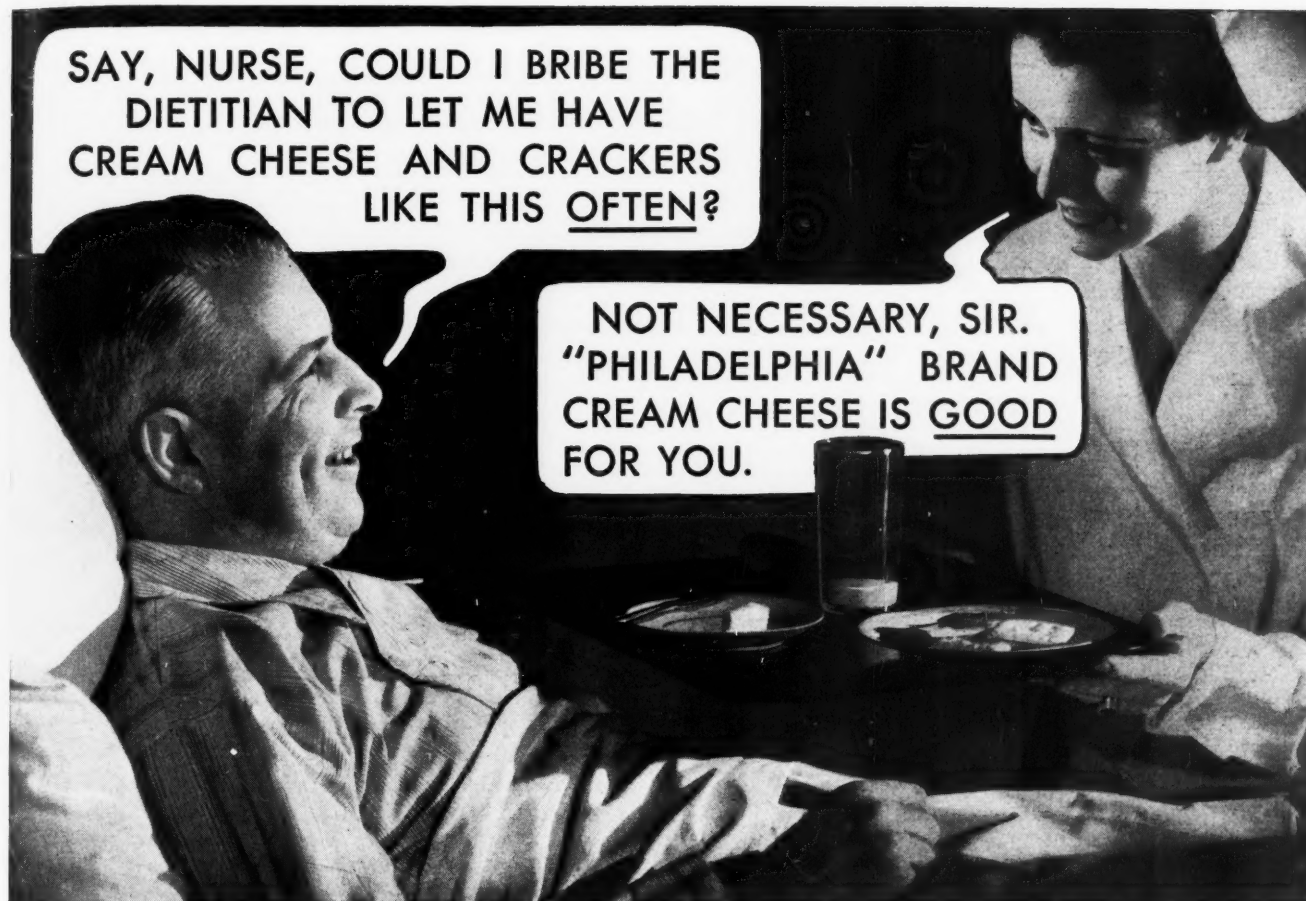
Before the present system was adopted food was sent to the small kitchens on the floors and served from there. That method did not prove

satisfactory, however, because of the difficulty of supervision and the fact that the dumb-waiter which was used to send up the food was located some distance from the main kitchen. It was found that the trays were much more attractive and satisfactory to the patient when central service was installed and a tremendous saving in food was realized.

Liquid nourishments, semisolid diets and all diets requiring frequent small feedings are served and largely prepared in a small kitchen adjacent to the main diet kitchen or serving room. A student nurse, supervised by the dietitian, prepares and serves these trays as well as all weighed diets. This was also taken care of in the floor kitchens on each floor at one time but is found to be much more satisfactory and economical under the present arrangement.

Negro help is used throughout the hospital. The dietary staff is composed of three cooks, three maids, one pot washer and two tray boys supervised by a graduate dietitian and her assistant, who is a graduate nurse. Inconvenient arrangement and inadequate space and equipment make it necessary to employ more help than would otherwise be needed. An average of 500 meals are served daily at a cost of from \$50 to \$60 per day for food. Patients who patronize the hospital are largely from rural sections and plain, well balanced meals satisfy the majority of them.

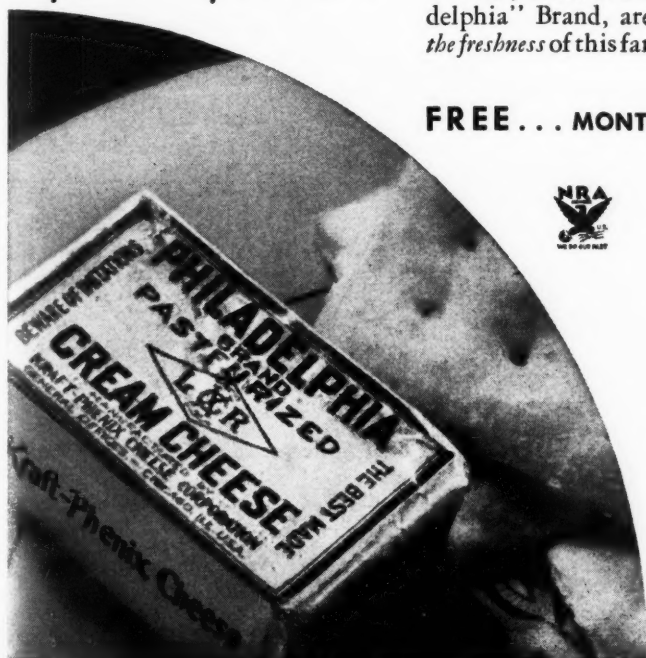
The business manager has charge of the buying of staple groceries and meats while the dietitian



SAY, NURSE, COULD I BRIBE THE DIETITIAN TO LET ME HAVE CREAM CHEESE AND CRACKERS LIKE THIS OFTEN?

NOT NECESSARY, SIR. "PHILADELPHIA" BRAND CREAM CHEESE IS GOOD FOR YOU.

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Cheeses are made or
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SNOWY-WHITE "Philadelphia" Brand Cream Cheese served with crackers and jelly. There's something wholesome, economical . . . and *appetizing!*

Made with rich cream and whole milk, "Philadelphia" Brand is a highly nutritious food. And a *pure food*, for it is never once touched by human hands!

Kraft, exclusive makers of "Philadelphia" Brand, are able to *guarantee the freshness* of this famous cream cheese.

No city market is more than twenty-four hours distant from a Kraft plant which ships the delicate, new-made cheese *daily*.

As an extra safeguard for this freshness, "Philadelphia" is sold only in small silver-foil packages which can be cut, *without waste*, for making salads and sandwiches.

This most famous of all cream cheeses is but one of *many* Kraft products perfectly suited for hospital use.

FREE . . . MONTHLY SERVICE OF CHEESE RECIPES FOR HOSPITALS



More and more dietitians are discovering that it *pays* to use *quality* cheese. They are discovering, too, that the world's finest cheeses are made or imported by Kraft.

The many fine Kraft Cheeses can bring appetizing variety to the staff's tables as well as patients' trays. Kraft-Phenix Cuisine Service will send you, *free*, a valuable monthly service of tested cheese recipes. Recipes are printed on filing cards and approximate costs are included for each serving. Fill in the coupon now.

Kraft-Phenix Cuisine Service, 401-c Rush St., Chicago, Ill.

Name

Hospital address

City.....State.....

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purchases all fresh foods. Each month the dietitian makes out a list of staples needed for the next month. Staples are bought in quantities to last from one to six months and are stored in a small building separate from the hospital. Each day the dietitian makes out a requisition for the day's supplies and these are delivered to the kitchen in the early morning.

The hospital is adequately supplied with the best of milk, buttermilk and cream from a modernly equipped dairy, owned and operated by Doctor McLeod. Fresh vegetables are also supplied the hospital in a large measure from farms owned by Doctor McLeod. The hospital operates its own laundry, cold storage and ice plant.

Although this hospital boasts of practically 100 per cent bed occupancy, the percentage of special diets is relatively low, because from 85 to 90 per

cent of the patients are surgical cases. The present economic condition probably is partially responsible for this fact since the chronic medical cases that might seek hospitalization ordinarily are unable to do so for financial reasons. The cases treated here by diet therapy are largely confined to diabetes, nephritis, colitis and hypertension, with only occasional cases of typhoid, pellagra and epilepsy.

A new hospital seven stories high and modern in every respect is expected to be completed within a year. When this new building is put into use many of the present problems in food service will be automatically solved. The dietary department will be in the subbasement and trays will be sent to the floors by means of dumb-waiters or a subveyor. The small service kitchen on each floor will be located directly over the main diet kitchen.

Hospital Saves \$10,000 in Raw Food Costs

The dietary department of Salem Hospital, Salem, Mass., made a large reduction in its operating costs during 1932, it is pointed out in the annual report of Oliver G. Pratt, superintendent of the hospital. While much of the saving was due to lower food prices, Mr. Pratt attributes a goodly portion of the saving to the efforts of the dietitian in making a complete study of the food problem.

The total cost of raw food in 1932 was \$35,366.23, which was approximately \$10,000 less than in 1931. The food cost per meal in 1932 was 13.3 cents, as compared with 15.1

average of 722 meals a day. Of these, 512 were served to guests of patients and 579 to guests in the dining rooms. This figure includes the meals served visiting civic groups, who paid for their own meals. Forty-five per cent of the 264,325 meals were served to patients. A new and more accurate system of keeping the meal count was used during the year.

A total of 7,309 dozen eggs, 14,717 pounds of chicken and fowl and 2,704 dozen oranges were used during the year. The accompanying table shows the distribution of the food dollar. The costs shown include food for nurses and employees as well as for patients.

Dietary Department Should Handle All Food Problems

In addressing a recent meeting of the New Jersey State Dietetic Association on "The Relation of the Dietitian and the Dietary Department to the Hospital Organization," Dr. Paul Keller, superintendent, Beth Israel Hospital, Newark, N. J., offered the following suggestions:

"The trend in the modern hospital is to consider all food problems as part of the dietary department and to place the responsibility for their solution in the hands of the dietitians. Student nurses, and in some instances even interns, should receive all their dietary training under the supervision of this division. Bringing all food problems under the control of the dietary department places the responsibility where it belongs. When there is centralized responsibility, there naturally follows more effective budget control and by having coordinated food planning under one departmental chief greater economy and less waste are ensured.

"The nursing service of hospitals naturally improves when there are sufficient dietitians who have close contact with patients both on private and ward services and larger dietary staffs would make it possible to have ward dietitians as well as dietitians in out-patient departments. The problem of personal contact with the patient by the dietitian must be worked out in the near future.

HOW THE FOOD DOLLAR WAS SPENT

Item	1931 %	1932 %	Expended 1932
Meat	36	32.5	\$11,381.77
Milk	18	17.6	6,192.82
Butter and cheese.....	6	6	2,176.23
Cereal and breadstuffs..	3.6	4.2	1,416.26
Fresh vegetables	6	6	2,176.08
Canned vegetables	4.2	4	1,383.77
Groceries	3.5	4.2	1,502.64
Sugar	1.5	1.6	666.04
Fresh fruits	4.4	5.6	1,951.89
Canned fruits	3.8	4.4	1,577.16
Tea, coffee and cocoa.....	2.5	3.3	1,096.20
Other beverages	1	1.1	408.57
Eggs	6	6	2,165.88
Fish	3.5	3.5	1,270.92
	100%	100%	\$35,366.23
	1931		1932
Meals served	302,673		264,325
Total raw food cost.....	\$45,656.49		\$35,366.23
Food cost per meal.....	15.1c		13.3c

cents in the preceding year. In addition to the lower food prices, this saving, according to Mr. Pratt, was due to the installation of a system whereby food waste was more carefully checked and quantities served were more carefully supervised.

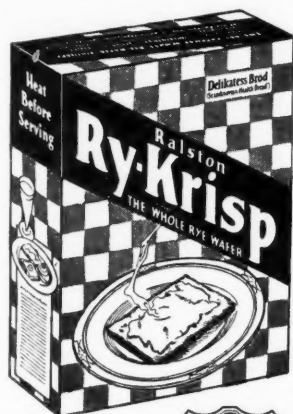
The number of meals served in 1932 was 264,325, or an

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March Dinner Menus for the General Hospital Patient*

By GRACE BULMAN

Superintendent of Dietitians, U. S. Veterans' Administration

Day	Appetizer or Soup	Meat or Substitute	Potato or Substitute	Vegetable	Salad or Relish	Dessert
1.	Cream of Pea	Roast Lamb, Mint Jelly	Mashed Potatoes	Broccoli, Hollandaise Sauce	Mixed Vegetable	Apricot Whip, Vanilla Wafers
2.	Tomato Consommé	Panned Oysters, Lemon Butter Sauce	Julienne Potatoes	Baked Squash	Lettuce Hearts, French Dressing	Cherry Pie
3.	Mulligatawny	Roast Pork Loin, Gravy	Baked Sweet Potatoes	Buttered Lima Beans	Spiced Apples	Maple Nut Ice Cream, Cookies
4.	Chilled Pineapple Juice	Fricasséed Chicken	Buttered Noodles	Creamed Peas	Celery and Olives	Chocolate Meringue Pudding
5.	Mixed Vegetable	Veal Cutlets, Tomato Sauce	Baked Potatoes	Escalloped Corn	Grapefruit and Orange	Gingerbread, Whipped Cream
6.	Vermicelli	Roast Beef, Gravy	Hominy au Gratin	Buttered Cauliflower	Tomato Aspic	Peach Ice Cream, Hermits
7.	Split Pea	Boiled Smoked Tongue, Raisin Sauce	Steamed Potatoes	Spinach with Egg	Asparagus and Pimento	Lemon Pie
8.	Consommé with Rice	Baked Virginia Ham	Glazed Sweet Potatoes	Southern Stewed Tomatoes	Waldorf	Tapioca Custard
9.	Cream of Chestnut	Fillet of Mackerel, Lemon	Mashed Potatoes	Sautéed Eggplant	Jellied Vegetable	Blueberry Cobbler
10.	Mock Turtle	Braised Lamb with Bacon	Buttered Rice	Lyonnais Carrots	Romaine, Russian Dressing	Dutch Apple Cake
11.	Chilled Tomato Juice	Broiled Steak	Hash Browned Potatoes	Mashed Turnips	Sweet Mixed Pickles	Frozen Eggnog, Macaroons
12.	Oxtail	Meat Pie	Macaroni Puff	Wax Beans	Egg and Celery	Currant Jelly Roll
13.	Cream of Spinach	Stuffed Roast Veal	Baked Corn	Buttered Asparagus	Watermelon Pickles	Date Torte
14.	Shrimp Cocktail	Chicken à la King	Rice Croquettes	Escalloped Cabbage	Cranberry Relish	Banana Cream Cake
15.	Noodle	Beef Steak Roll, Mushroom Sauce	Browned Potatoes	Buttered Green Beans	Lettuce, Thousand Island Dressing	Rhubarb Tarts
16.	Clam Consommé	Baked Trout, Parsley Butter Sauce	Succotash	Harvard Beets	Pineapple and Carrot	Steamed Fig Pudding, Foamy Sauce
17.	Minted Fruit Cocktail	Baked Spiced Ham	O'Brien Potatoes	Buttered Peas	Mixed Green	Pistachio Ice Cream, Shamrock Wafers
18.	Tomato Bisque	Roast Chicken, Cranberry Jelly	Brown Rice	Brussels Sprouts	Celery Hearts	Peach Shortcake, Whipped Cream
19.	Chicken Broth with Barley	Swiss Steak	Stuffed Baked Potatoes	Creamed Onions	Pear and Cheese	Marshmallow Graham Roll
20.	Cream of Mushroom	Broiled Lamb Chops	Spaghetti au Gratin	Baked Eggplant	Spiced Pears	Chocolate Layer Cake
21.	Consommé with Noodles	Hamburg Cakes, Gravy	Duchess Potatoes	Diced Rutabagas	Water Cress, French Dressing	Orange Custard
22.	Cream of Lettuce	Baked Calves' Hearts	Parslied Potatoes	Grilled Tomatoes	Dill Pickles	Apple Pie, Cheese
23.	Vegetable	Baked Halibut, Tartar Sauce	Escalloped Potatoes	Buttered Lima Beans	Tomato and Lettuce	Fruit Gelatin, Lady Fingers
24.	Cream of Asparagus	Country Sausage, Sautéed Apples	Baked Hominy	Kale with Chipped Egg	Ripe Olives	Coconut Cake
25.	Grapefruit and Banana	Chicken à la Maryland	Grilled Sweet Potatoes	Baked Tomatoes	Peach Pickles	Hot Fudge Sundae, Ice-Box Cookies
26.	Oyster Gumbo	Roast Beef, Horse Radish Sauce	Cottage Fried Potatoes	Escalloped Cabbage	Stuffed Prune	Caramel Pie
27.	Bean	Pork Chops, Apple Rings	Corn Fritters	Creamed Celery	Chow Chow	Raspberry Sherbet, Sugar Cookies
28.	Chilled Tomato Juice	Broiled Liver and Onions	Mashed Potatoes	Browned Parsnips	Lettuce, Roquefort Dressing	Pineapple Upside Down Cake
29.	Lentil	Shepherd's Pie	Southern Spoon Bread	Buttered Beets	Frozen Fruit	Angel Food Cup Cakes
30.	Corn Chowder	Baked Shad, Shad Roe Sauce	Browned Potatoes	Spinach, Lemon	Cole Slaw	Apple Ginger Cake, Hard Sauce
31.	Chicken Consommé	Broiled Steak	French Fried Potatoes	Tomatoes and Okra	Radishes and Onions	Strawberry Ice Cream, Nut Cookies

*Recipes for any of the above dishes will be supplied upon request by Anna E. Boller, Central Free Dispensary, Rush Medical College, Chicago.



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Superintendent

NEWS OF THE MONTH

Admission of Pay Patients by Teaching Hospitals Attacked at Chicago Meeting

Has the university hospital with a full-time staff any right to admit pay patients? This subject aroused a storm of violent controversy at the annual congress of the Council on Medical Education and Hospitals of the American Medical Association, which met in Chicago February 12 and 13.

The attack was directed principally against the University of Chicago Clinics. Dr. Henry Houghton, director of the clinics, reported that the out-patient department of the university recorded last year 139,000 visits of which about 4 to 6 per cent were full-pay, 85 to 90 per cent part-pay and 10 per cent wholly free. This load furnished 1.5 new patients per student per instruction day.

In the in-patient department, 6.3 per cent of the patients were full-pay, 63 per cent part-pay and 30.7 per cent wholly free. Thirty-two per cent of the new admissions were from outside of Chicago and another 48 per cent were from outside of the section of the city in which the university is located. The patients who came from the area around the clinics constituted less than 0.8 of one per cent of the population of that area.

Brand Method Unfair

Assuming that each new out-patient pays \$1.29 for each of a total of eight visits, Doctor Houghton declared, the effect is that each physician on the staff of the university is taking from potential practice of the physicians in the university's district an average of \$742 a year. If these physicians were in private practice, he said, they would obtain in fees from the district at least eight times as much. "Therefore the doctors who have been put on a full-time basis have very largely been taken out of competition with their colleagues in private practice."

"Provided it is done ethically, honestly and fairly there is no reason," Doctor Houghton concluded, "why university clinics should not use paying patients for teaching purposes."

In attacking this position Dr. Nathan B. Van Etten, New York City,

Dean J. H. J. Upham, Ohio State University College of Medicine, and Dr. Austin A. Hayden, Chicago, warned against lay domination of medical practice and branded the use of pay patients as unfair competition of a university with its graduates. Doctor Van Etten declared that "the corporate practice of medicine, whether by universities or other groups, is unethical and unsocial."

Two Doctors Defend the System

Doctor Hayden declared that no request for pay clinics in Chicago has ever come to the Chicago Medical Society from the physicians. He declared that the deficit of \$4,000 per medical student at the University of Chicago, was so excessive that "even the Standard Oil Company is not satisfied with it." All university clinics, he said, should be subservient to the organized medical profession.

Northwestern University never admits any patient who can afford to pay a private physician, according to Dean Irving S. Cutter. "We feel," he declared, "that it is a subversion of a trust to use the gifts of endowment for our medical schools and hospitals for the care of pay patients."

Dr. John Wyckoff, New York City, and Dr. Reginald Fitz, Boston, defended the use of pay patients as essential to proper teaching. They both agreed that physicians would be better trained to treat private patients if as students they had had an opportunity of caring for pay patients in the medical school. Such experience would give them a better understanding of the psychology of pay patients and a more careful regard for their pocket-books.

A new national survey of medical schools was called for by Dr. Ray Lyman Wilbur, chairman of the council, in presenting his report on the year's work. There is as much difference today between the best and the poorest Grade A medical schools, Doctor Wilbur declared, as there was twenty years ago between the Grade A medical school and the Grade C school. The purposes of the survey would be to

improve graduate instruction, to eliminate obsolete courses, to embody newer social concepts, especially prevention, to improve the instruction regarding obstetrics, psychology and normal health and behavior, to improve the relation with dentistry and nursing, and to develop better relations between medical schools and hospitals.

Group hospitalization was commended by Doctor Wilbur.

Robert G. Sproul, president, University of California, declared that insufficient attention has been paid to correlating medical services and making them available to the public at a reasonable cost. Unless medical schools take an interest in these problems, he declared, "they will fail to meet the need of society and of our students."

The importance of developing a new type of general practitioner was stressed by Dr. James B. Herrick, Chicago, and several other speakers. Doctor Herrick urged that the general practitioner of the future should be qualified as a health adviser by his character, energy and personality, by his knowledge based on study and practice and finally by his experience in the art of medicine.

New Jersey Group Holds Round Table Conference

A round table conference of the New Jersey Hospital Association was held February 8 at the Presbyterian Hospital, Newark. Following luncheon, which was well attended, a program was arranged, presided over by Marie Louis, president of the association.

Problems of administration and of hospital surveys were discussed by Dr. George O'Hanlon, director, Jersey City Medical Center, Fred W. Heflinger, superintendent, Mercer Hospital, Trenton, and Emil Frankel, director, hospital survey, New Jersey Department of Institutions and Agencies. Other subjects included on the program were hospital legislation now pending and the industrial compensation law investigation. Mr. Heflinger commented on the first subject, while F. Stanley Howe, director, Orange Memorial Hospital, Orange, spoke on the industrial compensation law.

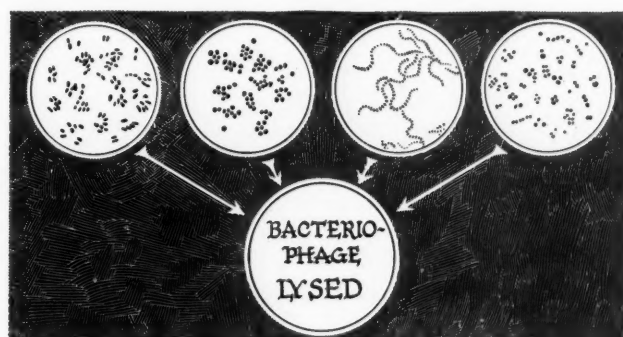
The members later inspected the hospital.

*

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NEWS OF THE MONTH

Government Aid in Hospitalization of Indigent Favored by Methodist Hospital Association

"There is no logical reason why federal aid should be extended to well persons and denied them as they step into hospital doors," declared Howard O. Hunter of the federal emergency relief administration in addressing the meeting of the National Association of Methodist Hospitals, Homes and Deaconess Work, held in Chicago February 14 and 15.

"Federal assistance for the care of indigent patients in hospitals has been denied simply because we didn't have the money," Mr. Hunter stated. "A bill is now in Congress to appropriate this money and if we are called upon to testify we shall support it."

The place of government aid to hospitals occupied a considerable share of the program. Rev. Newton E. Davis, secretary, Board of Hospitals, Homes and Deaconess Work, expressed fear that the government would have to take over the church hospitals if they did not secure increased funds. From a survey of the seventy-six Methodist hospitals, Rev. F. G. Fowler, superintendent, White Cross Hospital, Columbus, Ohio, concluded that only a few now obtain government aid. One hospital receives aid from the federal government, two receive aid from states, and fifteen receive help from county and municipal governments.

Some Favor Federal Aid

Those present agreed that some unit of government—federal, state or local—should assume the responsibility of paying for the hospital care of the indigent. Mr. Fowler favored local support rather than state or federal aid, fearing that the latter would bring more political interference. Others pointed out that in many areas not only local but even state resources are practically exhausted and that federal aid is imperative.

To finance nursing schools, all student stipends should be eliminated, no free hospitalization should be given probationers, and an entrance fee should be charged which will cover uniforms, books, pins and similar expenses, according to Rev. J. A. Diekmann, superintendent, Bethesda Hos-

pital, Cincinnati. Mr. Diekmann reported that in his 255-bed hospital the maintenance costs of students were \$157 each in 1931 and \$154 each in 1932 over the amount that the students earned by their work. On the other hand, he reported that graduate service would have cost \$36,000 more in 1931 and \$28,000 more in 1932 than the student service cost.

In addition to the changes suggested to improve the finances of nursing schools, Mr. Diekmann recommended that all nursing schools in hospitals of less than 100 beds be closed, that entrance requirements be raised so as to reduce classes by 50 per cent, and that public support in the form of endowments be sought for nursing education.

A Ray of Hope for Nurses

Paul Fesler, superintendent, Wesley Memorial Hospital, Chicago, reported that the difference between graduate and student service in his hospital was only \$51 a year per nurse. Northwestern University is now giving part of their education to Wesley nurses and granting them a degree.

Alden B. Mills, managing editor, *The MODERN HOSPITAL*, urged that tuition be charged nurses but that the quality of the education be raised. He commended the plan of university education for nurses.

The average private duty nurse in Wisconsin had only thirty-five days' work during the first five months of 1933, according to Caroline M. Fenby, superintendent, Methodist Hospital, Madison, Wis. Miss Fenby severely criticized those hospitals which took advantage of unemployment among nurses to employ them full time for their room and board.

A hopeful note for nurses was sounded by Dr. C. S. Woods, superintendent, St. Luke's Hospital, Cleveland, and Rev. John G. Benson, superintendent, Methodist Hospital, Indianapolis, who reported that recently they had experienced difficulty in obtaining graduate nurses. In Cleveland special duty nurses are paid \$5 for eight-hour duty and they purchase their own meals.

Chicago Architects Get Indian Hospital Contracts

Schmidt, Garden and Erikson, architects, Chicago, have been selected to draw plans for three new Indian hospitals and for additions and improvements to five existing Indian hospitals in various sections of the United States. The work will be financed by PWA funds. Carl Erikson of the architectural firm recently visited the institutions to study their requirements.

The three new hospitals will be erected at Warm Springs, Ore., Coleville, Wash., and near Yankton, S. D. The respective costs of these institutions will be \$85,000, \$180,000 and \$80,000.

The location of the existing hospitals that are to be improved and enlarged and the approximate cost of the work follows: Cass Lake, Minn., \$100,000; Browning, Mont., \$172,500; Crow Agency, Mont., \$160,000; Owyhee, Nev., \$75,000, and Cherokee, N. C., \$80,000.

N. Y. Memorial Hospital Treats 2,858 New Patients

New patients to the number of 2,858 were treated by the Memorial Hospital, New York City, during the past year, according to the annual report of the institution.

More than 5,000 patients applied for treatment at the hospital which is the first special cancer hospital to be established in the United States, and 41,833 visits were made to the observation department for examination and advice. Out of a total of 36,144 hospital days of care last year, 12,051, or 33.3 per cent, were free. Of 67,126 visits made to its out-patient department, 23,920, or 35.6 per cent, were free.

Hospital Seeks \$1,000,000

A campaign for a million dollars for the purchase of a new hospital building to take the place of its present inadequate quarters will be started in the near future by the Beth David Hospital, New York City. Samuel G. Ascher, superintendent of the hospital, will direct the campaign.

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NEWS OF THE MONTH

Hospital Council Is Formed in Milwaukee

A hospital council was organized recently in Milwaukee, and all accredited hospitals in the city have become members. The purpose of the organization is "to establish cooperation among the hospitals and other organizations, to communicate correct information regarding hospitals and to assist in promoting the health work in the community in general."

Each hospital is entitled to be represented by three members: the superintendent, a member of the medical staff and a member of the board of directors.

An executive committee of five persons and a program committee of four are provided for. Meetings are held every month, except during the summer, at the academy of medicine.

The officers are Rev. H. L. Fritschel, president; L. C. Austin, vice president, and Frank Bruce, secretary-treasurer.

Construction Resumed on Cook County Nurses' Home

Work was resumed on January 8 after a delay of about three years on the construction of the home for nurses at Cook County Hospital, Chicago, following receipt of \$2,040,500 from the Reconstruction Finance Corporation. The home is to be completed in nine months.

The money was received from the RFC, through posting as collateral bonds voted November 4, 1930, for the project. Following the voting of the bonds only \$270,000 worth of the issue was sold.

With this \$270,000, however, the ground work up to the first floor slab was completed. When completed the building will house 850 nurses, now occupying six places acquired by the county at an annual rental of \$90,000.

Through a redrafting of the plans, which includes doing away with the proposed natatorium and gingerbread decorations, sufficient money has been saved to include in the building the school for nurses. The penthouse, which tops the main structure, also has been redesigned to house the supervisors.

The structure will be seventeen sto-

ries and will provide individual rooms for the student nurses, with common baths on each floor. Supervisors will share adjoining baths. A laundry and cafeteria are included in the plans.

Each of the single bedrooms will be fitted with a lavatory, a single bed, an easy chair, a closet for clothes, a straight chair and a work desk. The floors are to be of sanitary composi-

tion material with a small rug beside the bed.

The building will have its own private hospital and dispensary. The nurses' home hospital will not be equipped for major operations, such work being taken care of in the Cook County Hospital. The structure will have a roof garden, where the nurses may enjoy sun baths.

Coming Meetings

Washington State Hospital Conference.

President, C. J. Cummings, Tacoma General Hospital, Tacoma.
Secretary, Dr. A. C. Jordan, Harborview Hospital, Seattle.

Next meeting, Spokane, March 7.
Northwest Texas Clinic and Hospital Managers' Association.

President, W. V. Jarratt, San Angelo.
Secretary-Treasurer, Velta Lee Stephenson, San Angelo.

Next meeting, Temple, March 22-23.
Hospital Association of the State of Texas.

President, Dr. J. H. Stephenson, Parkland Hospital, Dallas.
Secretary, Elizabeth Kelly, Sealy Hospital, Santa Anna.

Next meeting, Temple, March 23-24.
Western Hospital Association.

President, Dr. J. Rollin French, Golden State Hospital, Los Angeles.
Secretary, Lola M. Armstrong, R.N., editor, *Western Hospital Review*, Los Angeles.

Next meeting, Sacramento, Calif., April 9-13.
Hospital Association of Pennsylvania.

President, Jessie J. Turnbull, Elizabeth Steel Magee Hospital, Pittsburgh.
Secretary, Howard E. Bishop, Robert Packer Hospital, Sayre.

Next meeting, Pittsburgh, April 10-12.
Joint Meeting, Ohio, West Virginia and Kentucky Hospital Associations.

Cincinnati, April 17-19.
American Nurses' Association, National League of Nursing Education and National Organization for Public Health Nursing.

Next meeting, Washington, D. C., April 22-27.
Iowa Hospital Association.

President, Clinton F. Smith, Allen Memorial Hospital, Waterloo.
Secretary, Erwin C. Pohlman, University Hospitals, Iowa City.

Next meeting, Council Bluffs, April 30-May 1.
Joint Meeting, Illinois, Indiana and Wisconsin Hospital Associations.

Chicago, May 2-4.
Joint Meeting, Mississippi, Arkansas, Tennessee and Louisiana Hospital Associations.

Natchez, Miss., May 9.
National Tuberculosis Association.

President, Dr. Alfred Henry, Indianapolis, Ind.
Managing director, Dr. Kendall Emerson, 450 Seventh Avenue, New York City.

Next meeting, Cincinnati, May 14-17.
American Association of Hospital Social Workers.

President, Elizabeth Gardiner, University of Minnesota, Minneapolis.
Executive secretary, Helen Beckley, 18 East Division Street, Chicago.

Next meeting, Kansas City, Mo., May 20-26.
Minnesota Hospital Association.

President, Joseph G. Norby, Fairview Hospital, Minneapolis.

Secretary, A. M. Calvin, Midway and Mounds Park Hospitals, St. Paul.
Next meeting, Rochester, May 24-25.

New York State Hospital Association.

President, Thomas T. Murray, Memorial Hospital, Albany.
Executive secretary, Carl P. Wright, General Hospital, Syracuse.

Next meeting, New York City, May 24-25.
Midwest Hospital Association.

President, Frank J. Walter, St. Luke's Hospital, Denver.
Executive secretary, Walter J. Grolton, City Hospital, St. Louis.

Next meeting, Tulsa, Okla., May 25-26.
Catholic Hospital Association.

President, Rev. Alphonse M. Schwitalla, St. Louis University, St. Louis, Mo.
Executive secretary, M. R. Kneif, 1402 South Grand Boulevard, St. Louis.

Next meeting, Cleveland, June 18-22.
Canadian Nurses' Association.

President, Mabel F. Hersey, Royal Victoria Hospital, Montreal.
Executive secretary, Jean S. Wilson, Suite 401, 1411 Crescent Street, Montreal.

Next meeting, Toronto, June 26-30.
American Protestant Hospital Association.

President, C. S. Pitcher, Philadelphia.
Executive secretary, Dr. Frank C. English, 3233 Grist Avenue, Cincinnati.

Next meeting, Philadelphia, September 21-24.
American Hospital Association.

President, Dr. Nathaniel W. Faxon, Strong Memorial Hospital, Rochester, N. Y.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.

Next meeting, Philadelphia, September 24-28.
American Occupational Therapy Association.

President, Dr. Joseph C. Doane, Jewish Hospital, Philadelphia.
Secretary-Treasurer, Mrs. Eleanor Clarke Slagle, Room 1511, 175 Fifth Avenue, New York City.

Next meeting, Philadelphia, September 24-28.
American College of Surgeons.

President, Dr. Wm. David Haggard, Nashville, Tenn.
Executive secretary, M. T. Farrow, 40 East Erie Street, Chicago.

Next meeting, Boston, October 15.
Ontario Hospital Association.

President, R. Fraser Armstrong, Kingston.
Secretary-Treasurer, Dr. Fred W. Routley, 410 Sherbourne Street, Toronto.

Next meeting, Toronto, October 24-26.
Kansas Hospital Association.

President, John E. Landers, Wesley Hospital, Wichita.
Secretary, Dr. John T. Axtell, Axtell Christian Hospital, Newton.

Next meeting, Newton, October 27.

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NEWS OF THE MONTH

Credit Bureaus Proposed for Clinic Applicants

Dr. Walter T. Danreuther, president of the New York County Medical Society, announced on February 2 that his society and the United Hospital Fund of New York had been conferring for several months with a view to remedying existent evils in the system of clinical treatment as practiced by most hospitals. Doctor Danreuther spoke at a meeting of the Physicians Democratic Association in New York.

A plan now under consideration would set up a credit bureau in every hospital to pass on persons applying for treatment, he said. It would fix uniform fees for patients and would involve, in all cases, the payment of physicians employed in the clinics.

The meeting had been called primarily to discuss the bills offered by State Senator James J. Crawford to provide free clinical treatment by all hospitals supported by public funds. Justice Henry G. Schackno criticized the measures sharply.

N. Y. Women's Infirmary Reports Year's Progress

Facilities in the New York Infirmary for Women and Children, New York, were increased with a total of 162 beds during the past year, according to the hospital's annual report. There were 728 births during the year and 2,835 patients were admitted for a total of 16,238 days' free care. A total of 41,291 visits were made to the dispensary, and 12,112 free treatments and 8,302 free prescriptions were given. The hospital showed a deficit for the year of \$1,095.22.

Number of Necropsies in Chicago Hospitals Revealed

Figures on necropsies in Chicago hospitals for 1932 have recently become available through a committee report to the governors of the Institute of Medicine of Chicago.

Sixty hospitals, each with a bed capacity of more than fifty, responded to the questionnaire sent out. In 1932, with the same number of hospitals reporting as in the previous year, the bed capacity was 184 less, there were

25,065 fewer admissions and 1,056 fewer deaths. The number of deaths for 1932, excluding figures for Cook County Hospital, was 7,307 as against 8,650 in 1931. There were 504 fewer permission necropsies but the percentage was but little changed (37.1 in 1931 and 36.4 in 1932).

"During this time of financial stress and pressure of service," declares Dr. Ernest E. Irons, chairman of the committee, "it is important that the quality of service rendered to patients as reflected in necropsy percentages be maintained." Thirteen Chicago hospitals had necropsy percentages over 50.

Dr. Cabot Foresees Compulsory Insurance

An increase in the use of specialists, a better control over them and the development of a form of health insurance are foreseen by Dr. Hugh Cabot, consultant of the Mayo Clinic and professor of surgery of the University of Minnesota.

"Contrary to general opinion, there are not enough specialists," Doctor Cabot declared in a recent statement given out in Portland, Ore. "Specialization in medicine must be carried further for the good of the patient, and at the same time it must be kept within such cost limits as will enable patients to enjoy complete medical care. A corollary to this is that the specialist should be ensured payment compensating him for the time required to master his specialty.

"It is a complicated problem, and my prediction is that we shall see in the near future some sort of compulsory medical insurance with the element of private profit removed but ensuring the doctor a basic income. It is unsound economically when one-half the people treated are treated at no cost to themselves. . . .

"General and compulsory health insurance would be a solution. It could be worked out so everyone would be ensured adequate medical attention and care, at the same time leaving those who are able to afford greater luxuries than most people the privilege of getting them by paying the price for the things they want. That would leave the element of personal gain for the physician in the scheme."

Studies Financial Status of Charity Patients

A committee of the Bronx County Medical Society, headed by Dr. Nathan B. Van Etten, announced recently the results of an investigation of the financial condition of 1,000 charity patients of Morrisania City Hospital, New York, according to the *Journal of the American Medical Association*. Doctor Van Etten is medical director of the hospital.

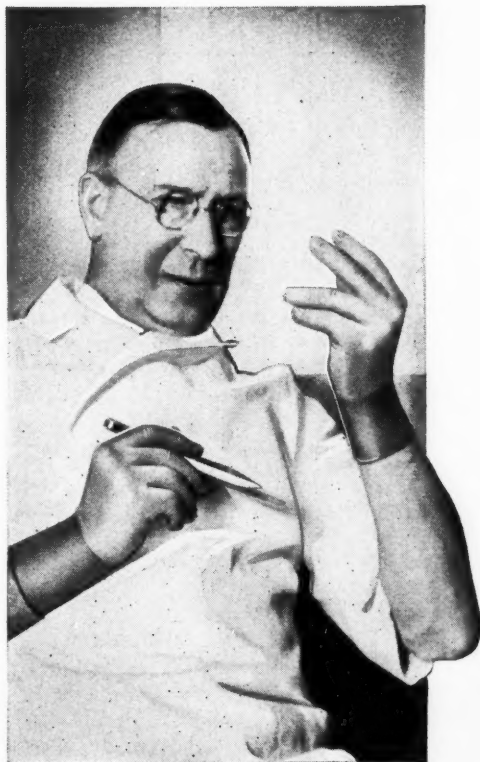
Cases were classified as follows: 583 were unable to pay; 118 were able to pay without question; 107 were able to pay with help from parents or relatives; 85 gave false addresses; 107 could possibly have paid a physician, obtained credit or paid minimum rates at a semiprivate institution. Among the "charity patients" were found many "city employees, some drawing large salaries, and members of their families, receiving free treatment and free operations," the report said.

As the cost to the city for patients is \$4.12 a day and each patient stays an average of eleven days in the hospital, it was estimated that if 10 per cent of the 16,000 patients cared for at the hospital were able to pay, the city was defrauded of \$72,512. The same rate for the three general hospitals in the Bronx would bring the loss to more than \$200,000. Adding those in the doubtful classes, the committee estimated the total loss at \$600,000.

The report recommended the establishment of a credit agency in every city hospital to determine the financial responsibility of all applicants and a central bureau to coordinate all the agencies.

St. Mary's Hospital Disbands Training School

Due to lack of funds three wards had to be closed and the nurses' training school disbanded in St. Mary's Hospital for Children, the oldest institution in New York for babies alone. Every effort is now being made to keep the hospital from closing down completely. Last year showed a deficit of \$25,000 in a budget of approximately \$120,000. Until two years ago, financial support came through private contributions and an endowment fund.



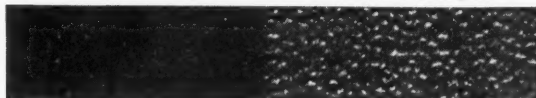
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NEWS OF THE MONTH

Hospital and Allied Groups Will Meet in Cincinnati

The Ohio, West Virginia and Kentucky Hospital Associations will hold a joint meeting at Cincinnati, April 17 to 19. Headquarters will be at the Netherland Plaza Hotel.

The Ohio Dietetic Association, the Ohio Association of Record Librarians and the Ohio Association of Nurse Anesthetists will meet in conjunction with the three above mentioned hospital associations.

Greenwich Hospital Modernizes Clinics

Enlargement and rearrangement of its out-patient department has been completed by Greenwich Hospital, Greenwich, Conn., at a cost of approximately \$10,000. The diet kitchen used to train nurses has been moved to another part of the hospital and the space which it occupied has been made into a vestibule and waiting room for the clinics.

Rooms formerly used by the doctors for locker facilities have been turned into toilets. Another room has been made into an optical clinic and provision has also been made for physiotherapy and dental departments. Double hung windows open from the main clinic into the record room, thus making all reports easy of access and available without delay.

William B. Tubby, architect, New York, prepared the plans for the remodeling work.

Community Hospital Will Try Group Hospitalization

A new community hospital, which is being planned for Kingsport, Tenn., will start its career by offering group hospitalization to the residents of the community, according to the 1933 annual report of the Commonwealth Fund. The hospital is to be built jointly by the fund and local groups. This is part of the fund's efforts to stimulate the provision of adequate hospital facilities in rural areas.

"The local board has been encouraged, and has indicated its desire," the report states, "to develop a plan of financing hospital service by pre-

payment. This method of spreading costs, stabilizing hospital income and encouraging a rational use of hospital facilities has been widely discussed during the past few years, but there has been little thorough study of its relation to service standards. Any such plan must be experimental, but the fund intends to subject the experiment to such rigorous analysis that conclusions may be drawn as to the value of the method.

"While details have not yet been worked out, the fund believes that the prepayment plan should be set up on a community basis rather than on a pay roll basis, that it should be administered directly by the hospital, and that it should cover a wide range of hospital services."

It is expected that this hospital will serve approximately 60,000 people in an industrial and agricultural area of Tennessee and Virginia.

The fund also reports that the six rural hospitals that it has previously assisted with grants or subsidies have weathered the depression and have obtained a slightly increased income during the last few months of the year 1933.

English Hospitals Meet Needs of Low Income Group

Several hospitals in England have opened moderate priced pay facilities to meet the needs of patients who can no longer afford the services of private nursing homes yet who do not wish to enter public wards. King Edward's Hospital Fund of London has asked that all hospitals make such provision.

In the Royal Northern Hospital accommodations for sixty-five such patients are provided. They are similar to private or semiprivate accommodations in American hospitals. The rates for accommodations of this type range from approximately \$26 to \$50 a week.

The Westminster Hospital now has beds for forty-four paying patients and is planning to increase this to 100. Present facilities are of two types: those for contributory patients and those for other private patients. In the former the physician can make a charge but it must be "strictly moderate." In the latter no limit is placed on the surgeon's fee.

Rappleye Anticipates Broad Changes in Medical Service

Broad changes in medical service in the United States are bound to result from "the far-reaching concepts of collective responsibility now modifying our entire social and economic structure," according to Dr. Willard C. Rappleye, dean of the school of medicine of Columbia University, New York, whose annual report was recently made public.

"The growth of collective planning in regard to wages, hours of employment, and living conditions is likely to produce the organization of groups for the mass purchase of medical and other services. . . . The trends now evident in this country are not unlike the movements in the older civilizations of Europe, which ultimately resulted in various forms of sickness insurance or governmental medical care for those of the population with a narrow economic margin.

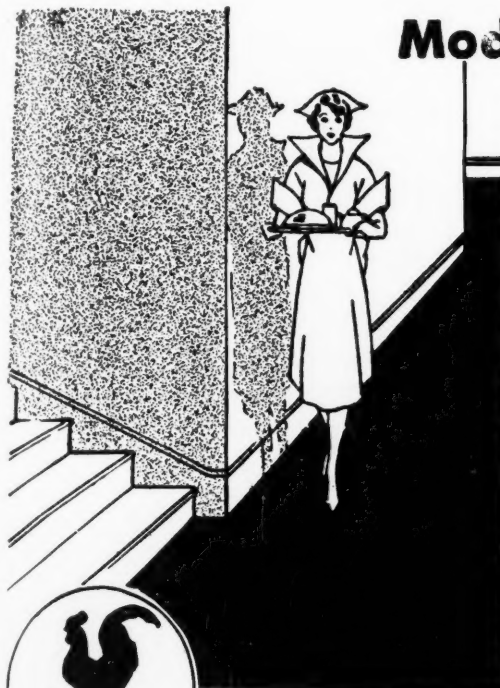
"The need within the profession," Doctor Rappleye continues, "is not for those who may most eloquently present the undesirable results which may develop from thoughtless and intemperate schemes, but rather for those who, in positions of responsibility, will devote themselves thoughtfully and courageously to evolving a program of medical service which will ensure permanently the highest type of professional care for the members of the public when they are sick."

Treats 800 Children for Tuberculosis

Eight hundred children were treated 70,707 days during 1933 at the Tuberculosis Preventorium for Children, Farmingdale, N. J., it was announced recently. This is the largest number of children the institution has cared for in any one year since it was founded in 1909.

Two Hospitals Given Aid

Two hospitals benefit under the will of Walter J. M. Donovan, New York real estate operator. The Presbyterian Hospital of New York receives \$7,500 and St. Vincent's Hospital, of the same city, \$10,000.



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NEWS OF THE MONTH

Collegiate Schools of Nursing Meet at Yale

The first annual meeting of the Association of Collegiate Schools of Nursing was held at Yale University January 29-30.

Approximately forty universities have now established connection with schools of nursing. The new organization has as its objectives: to develop nursing education on a professional and collegiate level; to develop a basis for the evaluation of nursing education; to promote and strengthen relationships between schools of nursing and institutions of higher education; to promote study and experimentation in nursing practice and nursing education.

University or college schools or departments of nursing education interested in the association are as follows: Catholic University of America, Duke University, Fordham University, Hampton Institute, University of Michigan, Peabody College for Teachers, Rochester University, Skidmore College, Mary McClellan School of Nursing, Simmons College, St. Louis University, Stanford University, Syracuse University, Teachers College of Columbia University, Vanderbilt University, University of California, University of Oregon, University of Virginia, University of Washington, Washington University of St. Louis, Western Reserve University and Yale University.

Rockford Group Scheme Prepares for Expansion

The Hospital Service Association, Inc., of Rockford, Ill., one of the oldest group hospitalization plans in the United States, has elected Dan Traner, superintendent of the Swedish-American Hospital, Rockford, as president.

The Rockford plan was started in 1912 by an Englishman who modeled it on a similar plan in Leeds, England. Members of the Rockford plan may take out a "single" membership for an entrance fee of \$1 and annual dues of \$3.10 or a "double" membership for an entrance fee of \$2 and annual dues of \$6.20.

The benefits for a single membership are as follows: a payment of \$18

per week toward hospital care or, if the patient is cared for at home, toward the services of a visiting nurse. In cases of contagious disease this sum may be used to employ a graduate nurse at home. In addition, \$10 will be allowed for the use of an operating room.

Those with double memberships have the same benefits except that the financial limit is larger: \$30 a week for hospital care or nursing and \$15 for the use of an operating room. Service is not limited to the local hospitals and members who move away may retain their membership. There is a waiting period of thirteen weeks before benefits begin in cases of ordinary illness and of one year in maternity cases. X-ray service, therapeutic treatment, laboratory work, anesthetics, drugs and dressings are not included. Care of venereal disease and of alcoholic cases is also excluded. The constitution of the association provides that "rest, rheumatism, nervous, mental, observation, chronic disease and

convalescent cases are not always considered legitimate cases for the services of the association."

There are now 495 members of the association. Last year receipts totaled \$2,097.75 and thirty-nine members received benefits totaling \$1,903.31. Mr. Traner hopes to extend the membership greatly. There are about 85,000 people in Rockford.

Psychiatric Institute Presented With Portrait

The New York Psychiatric Institute and Hospital, Columbia-Presbyterian Medical Center, New York, has been presented with a bas-relief portrait of the late Dr. Thomas W. Salmon, well known for his work in the social applications of psychiatry, by the Thomas William Salmon Memorial Committee. Dr. Clarence O. Cheney, director of the institute, presided at the ceremonies which accompanied the presentation.

A. H. A. Gives State and Federal Leaders Trustees' Viewpoint on Hospital Matters

At the suggestion of the Council on Community Relations, Dr. Nathaniel W. Faxon, president of the American Hospital Association, has sent a letter to the chiefs of federal and state departments whose actions and rulings affect the welfare of hospitals. The letter expresses the following viewpoints of the association's trustees:

1. No new veterans' hospitals should be built or existing ones expanded as long as there are unoccupied hospital beds available in nongovernmental hospitals which could be used for the care of veterans.

2. No new municipal, county or state hospitals should be built with PWA funds until competent study reveals a real need for them.

3. While the modernization of hospital facilities is desirable, no additional facilities should be provided in nongovernmental hospitals without careful consideration. Average occupancy rates in nongovernmental hospitals in 1932 were below 50 per cent.

4. The time has come when community planning of those aspects of hospital facilities and service that affect the entire community must replace individual planning.

5. For the consideration of hospital problems, there is strongly recommended the formation of local hospital councils. These can readily ascertain the need for and wisdom of providing additional hospital facilities in their communities.

In view of these considerations the trustees requested that all departments of federal, state and local governments or other agencies dealing with hospital problems and the provision of additional hospital beds, "before reaching a decision or taking action regarding such problems, refer these matters to the local hospital councils for study and recommendation. When there is no hospital council, the opinion of the medical society or of a representative nonpartisan committee should be obtained."

MUCIN TREATMENT of *Peptic Ulcer* ... NOW CLINICALLY ESTABLISHED

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The Mucin method, which is physiologic in character, has been hinted at since Claude Bernard, but is now available for the first time in a practical form.

Starting with Fogelson's tests on a small group of patients in 1929, Gastric Mucin has gradually developed into a safe and rational therapeutic measure.

A questionnaire report from physicians throughout the United States on over 500 cases showed the following results:

In 217 cases of intractable peptic ulcer not responding to any other therapy, 137 (63.1%) were rendered symptom-free; 64 (29.4%) improved; and 16 (7.5%) failed to respond. 69 of these cases had failed to respond to surgery.



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NEWS OF THE MONTH

Hospital Social Workers Will Meet in New York

Four districts of the American Association of Hospital Social Workers have joined for the first Eastern Coast Regional Conference which will be held March 3 to 5 in New York City. The participating districts are designated according to territory and are the New England District, the North Atlantic District, the Middle Atlantic District and the Potomac District. The combined active and junior membership of these four districts numbers 473.

The conference has been planned to provide an opportunity for medical social workers in the region to meet in small groups to discuss highly technical problems and in larger groups to consider some of the general problems relating to their work. This marks the fifth regional conference of the association, and the first attempt to hold such a meeting in the East.

New England Association Elects New Officers

The New England Hospital Association held its twelfth annual meeting in Boston, on February 16 and 17. About 350 members and guests attended the meeting.

Albert W. Buck, superintendent of New Haven Hospital, New Haven, Conn., was elected president of the association for the ensuing year. Dr. Albert G. Engelbach, assistant director of Massachusetts General Hospital, Boston, was named secretary-treasurer.

Insurance Company Offers Group Hospitalization

A new form of group hospitalization has been started in Akron, Ohio, by the Prudential Insurance Company. In connection with their group life insurance and group insurance providing cash benefits for sickness and accidents, the company now has offered a hospitalization benefit to the employees of the Firestone Tire and Rubber Company.

The hospital benefits are \$3 per day on the hospital charge for board and room with an additional allowance of \$25 in any one case for laboratory,

operating room, anesthesia or x-ray fees. The total hospital benefits under the plan are not to exceed \$250 in any one case.

Men employees pay \$0.30 per month and women \$0.25 per month for this hospitalization benefit. It is reported that the company also contributes. No medical examination is required of employees who join the plan within thirty-one days after they become eligible. After that time they must have a medical examination at their own expense. It is reported that over 98 per cent of the employees signed up for the group coverage upon its initial offering.

Administrators' Organization Closes Charter Membership

At its meeting in Chicago on February 12 the American College of Hospital Administrators which was organized last fall accepted enough new members to bring the total membership to 101 and closed the charter membership. At its next meeting, to be held in Philadelphia just prior to the meeting of the American Hospital Association, it is expected that at least 100 more members will be admitted to the organization.

The present membership is as follows: L. C. Austin, Dr. A. C. Bachmeyer, Asa Bacon, Oliver H. Bartine, F. O. Bates, Howard E. Bishop, Dr. B. W. Black, Dr. E. M. Bluestone, Dr. Robert C. Buerki, Dr. L. H. Burlingham, A. M. Calvin, Dr. Fred Carter, Dr. J. G. Copeland, C. J. Cummings, C. J. Decker, Maurice Dubin, E. I. Erickson, Paul Fesler, Boris Fingerhood, J. B. Franklin, H. L. Fritschel, A. G. Hahn, Guy M. Hanner.

Dr. Harley A. Haynes, Dr. A. K. Haywood, Dr. Henry Hedden, Robert Jolly, Dr. Paul D. Keller, E. E. King, Dr. Walter E. List, J. Dewey Lutes, Dr. Basil C. MacLean, John R. Mannix, Elmer E. Matthews, James McNee, Dr. Donald M. Morrill, Dr. C. W. Munger, T. T. Murray, Robert E. Neff, Joseph Norby, Jas. U. Norris, Dr. George D. O'Hanlon, Henry A. Rowland, George D. Sheats, E. L. Slack, Dr. Donald C. Smelzer.

Dr. George F. Stephens, Dr. Herman Smith, John Smith, A. J. Swanson, L. C. von der Heide, Dr. Peter D. Ward, George W. Wilson, Dr. Lucius

R. Wilson, Dr. C. S. Woods, Charles A. Wordell, Carl P. Wright, E. Muriel Anscombe, W. D. Barker, John G. Benson, Dr. Burton A. Brown, E. M. Collier, Mabel Binner.

Dr. Allen Craig, Carolyn E. Davis, John C. Dinsmore, M. H. Eichenlaub, Dr. S. R. D. Hewitt, Howard E. Hodge, Clarence T. Johnson, Lake Johnson, Marie Louis, Jessie McCandlish, Elizabeth McGregor, Edith M. McKee, Robert A. Nettleton, Dr. Russell H. Oppenheimer, Dr. Charles E. Remy, Austin J. Shoneke, Clinton F. Smith, Cecile Tracy Spry, Alfred G. Stasel, Dr. Merrill F. Steele, Bryce L. Twitty, Rev. Philip Vollmer, Jr., Fred Walker, Frank J. Walter, Robert B. Witham.

Mabel Barr, John L. Burgan, Dr. Henry I. Klopp, Dr. Mary R. Lewis, Anna Lauman, Miss A. J. MacMaster, Dr. Henry K. Mohler, Melvin L. Sutley, Mary Stephenson, Jessie J. Turnbull, Georgia L. Rowan, W. M. Breiting, Victor Anderson.

The honorary members are: Dr. G. Harvey Agnew, Dr. Otho F. Ball, Dr. Bert W. Caldwell, Margaret M. Cummings, Matthew O. Foley, Rev. Maurice F. Griffin, Dr. Thomas Howell, Dr. Malcolm T. MacEachern, Dr. John M. Peters, Dr. Christopher G. Parnall, Rev. Alphonse Schmitalla, Daniel D. Test, Dr. William H. Walsh, Richard P. Borden, Dr. E. H. Lewinski-Corwin and C. S. Pitcher.

Aid for Hospitals Asked in Congress

Federal funds to aid in relieving the overcrowded conditions which exist in New York City hospitals will be available if a bill to be introduced in Congress is passed, according to Dr. S. S. Goldwater, commissioner of hospitals, New York City.

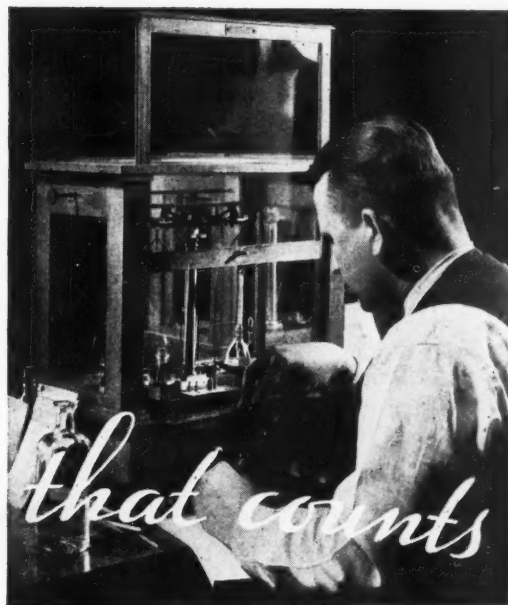
This bill, the result of Doctor Goldwater's correspondence with Senator Robert F. Wagner, will be along the lines of the measure now before the New York legislature which would permit the state emergency relief administration to use some of its funds for hospital relief projects.

Should either or both measures become law, Doctor Goldwater explained, the money obtained would be used to pay expenses of patients in private hospitals, thus easing the load on the overcrowded city institutions.

In ALCOHOL

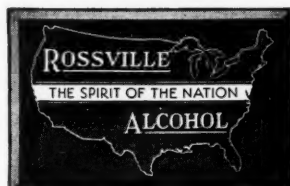
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NEWS OF THE MONTH

Bills Affecting Hospitals Before N. Y. Legislature

A bill has been introduced in the New York legislature to prohibit a working day of more than eight hours for nurses in all state, county or city hospitals or hospitals supported in whole or in part by public funds. The bill provides that "eight consecutive hours of work in any twenty-four hours shall constitute a legal day's work for any such nurse."

In commenting on this bill, Dr. S. S. Goldwater, commissioner of hospitals of New York City, stated that although he believes the measure is worthy he feels the city must oppose its passage because it would add from \$800,000 to \$900,000 to the cost of running the hospitals. He added that if the city could procure the necessary money it should not oppose the bill.

Other bills in the New York legislature, provide: (1) that no hospital supported in part by taxes shall make any charge for clinic service; (2) for the organization of a central bureau of hospital clinics in each public welfare district which shall issue rules for clinic admissions and act as a central admissions office; (3) for a hospital lien law, and (4) that nonprofit group hospitalization plans are exempt from the insurance laws.

Ask A. H. A. to Form Group Hospitalization Section

A request that the American Hospital Association have a section on group hospitalization was made at a conference on the subject called by C. Rufus Rorem, consultant of the A. H. A. council on community relations. The conference was held in Chicago on February 13.

The proposed section would maintain a central actuarial and statistical office, would counsel with all groups planning or engaged in group hospitalization activities, and would make information constantly available on all aspects of the subject. It was suggested that the work of the section be financed by a small assessment on all group hospitalization plans.

The discussion indicated that most of those who had had experience with group hospitalization plans were agreed on the following points: (1)

such plans would be readily approved by the majority of physicians if the plan were properly formulated and if the physicians clearly understood it; (2) most plans are charging more than they should for the service; (3) malingerers are almost negligible; (4) it is not necessary to insist on any fixed percentage of employees subscribing; (5) it is desirable to have group hospitalization administered by a nonprofit group on which the hospitals are represented along with members of the general public, and (6) there is a genuine demand for including dependents and extending the scope of service.

Private Hospitals in N. Y. Win Milk Battle

Private hospitals, charitable agencies and other institutions in New York State have regained the privilege of purchasing their milk supplies in the open market through bids.

A mandate of the New York State Milk Control Board, issued on April 7, 1933, limited this method of buying milk to governmental institutions, which resulted in private institutions having to pay higher prices for milk. The extension of the bidding privilege to private institutions will reduce their milk costs, it is pointed out.

Emil Greenberg, superintendent of Beth Abraham Home for Incurables, the Bronx, led the campaign in behalf of the private institutions.

Newton Memorial Hospital Cost \$312,567

The total cost of the Newton Memorial Hospital, Newton, N. J., is placed by the architects, Crow, Lewis & Wick, New York City, at \$312,567. This figure was given in the description of the layout and plans in the February issue of *The Modern Hospital* as amounting to \$450,000.

Hospital Receives \$50,000

A bequest of \$50,000 to the Methodist Episcopal Hospital, Brooklyn, N. Y., was left by the will of the late Alfred P. Sloan, who died on August 30, 1932. This was the largest of several charitable bequests made by Mr. Sloan.

Political "Pets" to Lose Jobs in N. Y. Hospitals

Dr. S. S. Goldwater, commissioner of hospitals, New York City, at work on a vast program for the improvement of the city's hospital system, announced his intention to remove incompetent political appointees from jobs in the department, effecting a considerable saving by replacing them or eliminating their positions.

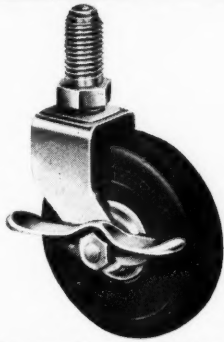
He has asked eight of the leading medical men of the city to serve as a board of administrative consultants, to aid him in bettering the functioning of the city's hospital system. None will receive a salary.

Those asked to serve are Dr. George Baehr, attending physician at Mount Sinai Hospital, to be consultant on clinical organization; Dr. Ernst P. Boas, chairman of the heart committee of the Tuberculosis and Health Association, to be expert on chronic diseases; Clarence E. Ford, assistant commissioner of the state social welfare department, to advise on social welfare problems; Dr. J. J. Golub, director of the Hospital for Joint Diseases; Dr. Willis G. Nealley, director of Brooklyn Hospital; Dr. Willard Cole Rappleye, dean of the College of Physicians and Surgeons; Dr. John Wyckoff, dean of the New York University and Bellevue Medical College, and Dr. Haven Emerson of Columbia University, to be consultant on public health administration.

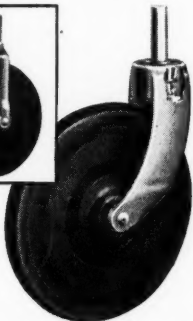
Doctor Emerson, former health commissioner of New York City, is to conduct a survey of tuberculosis conditions and facilities in New York.

Doctor Goldwater's executive staff now includes four deputy commissioners: W. S. D. Cook, an architectural engineer, who will supervise engineering, transportation, and mechanical features of the department; Sheldon L. Butler, formerly superintendent of Long Island College Hospital, who will be in charge of purchasing and supplies; G. T. Broad, who is in charge of auditing and other "paper work," and Dr. Alfred Shipley, who will handle public health aspects of the department's work. In addition, Doctor Goldwater is retaining the services of Dr. Mark L. Fleming as general medical superintendent and L. S. Timmerman, secretary of the department, who is in charge of personnel.

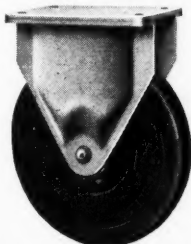
**FOR EVERY
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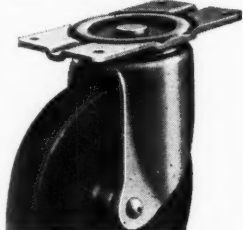
Faultless Double Ball Bearing Steel Socket Caster fitted with $\frac{3}{4}$ in. U. S. Thread and hexagon nut, for fastening through iron brackets, etc. Cadmium finish. Any size or type of wheel for covered or hard floors. With or without brake.



Faultless Swivel Stem Caster for Medium heavy duty. (Also available in rigid stem.) Plain or ball bearing. Rockite or Ruberex wheel. No "shimmy" with this caster, due to swivel being a Timken tapered bearing and row of ball bearings.



Faultless Rigid and Swivel Plate Casters, with Ruberex (soft tread) wheels. (Can also be had with Rockite wheel.) Plain or ball bearing.



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Faultless CUSHION Chair Glide; saves floors; saves chairs; saves nerves. It is quiet when new—and STAYS quiet. Easy to install. Flexible. Inexpensive.

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1. A modern wheel that does away forever with antiquated re-tiring methods. If it is ever needed, Faultless supplies a **NEW WHEEL** at the cost of the average tire.
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NEWS OF THE MONTH

Institutional Membership Urged by State Officers

A proposal that the membership of the Ohio Hospital Association, and presumably other state associations if they so desire, be placed on a strictly institutional basis so far as possible was the outstanding event of the meeting of state and regional hospital association officers with the officers of the American Hospital Association, held in Chicago February 13.

B. W. Stewart, president of the Ohio association, presented a resolution adopted by the trustees of the Ohio association which proposed that personal members should be restricted to "officers or members of an association the object of which is the foundation of hospitals or the promotion of the interest of organized medical charities" and other individuals interested in the advancement of hospitals. Personal membership would also be allowed to executives and department heads of governmental institutions which are not permitted to become institutional members.

Under this plan membership in the Ohio association would automatically include membership in the American Hospital Association. Dues would be fixed on the basis of size, \$1 a bed annually being suggested. Institutional members would be entitled to delegates based on bed capacity, as follows:

100 beds or less.....	one delegate
101-200 beds	two delegates
201-300 beds	three delegates
301-400 beds	four delegates
Over 400 beds.....	five delegates

Dr. N. W. Faxon, president of the A. H. A., who presided at the meeting, promised that the board of trustees of the national association would give the proposal prompt attention.

A somewhat similar proposal was made by Dr. Leon S. Lippincott on behalf of the Mississippi Hospital Association. He also suggested that the A. H. A. should formulate its own standards for approval because, he reported, many of the Mississippi hospitals approved by the American College of Surgeons are not living up to the standards of the college. The A. H. A. council on community relations and administrative practice is now at work on such standards.

Jessie J. Turnbull, president of the

Pennsylvania Hospital Association, urged that a greater effort be made to include governmental hospitals in the national association and to help them give better service to indigent patients. She reported that some tax supported hospitals were now caring for twice as many patients as they did before the depression without having had any increase in employees.

Named Consultant on Hospitals for County

John R. Mays, superintendent of Elizabeth General Hospital, Elizabeth, N. J., has been appointed consultant on hospitals and institutions for Union County, New Jersey, at a salary of \$1 annually.

At the same time that Mr. Mays was appointed, the Board of Freeholders voted to request aid from the CWA in conducting a survey of the entire question of hospitalization and institutional commitment in the county. It is hoped that a definite welfare plan coordinated with the needs of the county can be developed. The need for a psychiatric hospital and a children's detention home is to receive special study.

Mr. Mays has been hospital consultant to a firm of architects for a number of years.

Protest Against Excise Tax on Coconut Oil

Protests have been made by the American Hospital Association, by several of the state associations and also by individual hospitals against the excise tax of 5 cents a pound on coconut oil which was reported favorably by the ways and means committee of the House of Representatives. If this legislation is passed, according to Dr. Bert W. Caldwell, secretary of the A. H. A., it will probably mean an increase of one million dollars a year for hospitals in their soap purchases.

The tax is being supported, it is reported, by competitors of the oleomargarine industry. According to the *New York Journal of Commerce*, however, the oleomargarine industry can substitute other oils and the tax would therefore be of little benefit to farmers.

Medical Specialties to Be Controlled by New Board

The formation of a cooperative board to control the medical specialties, a need that has been recognized for years by leaders in the profession as well as by laymen, was accomplished in Chicago on February 11.

The new board is to be called the Advisory Board on Medical Specialties. The original membership will include two representatives from each of the following organizations: American Board of Ophthalmology; American Board of Otolaryngology; American Board of Obstetrics and Gynecology; American Board of Dermatology and Syphilology; Council on Medical Education and Hospitals of the American Medical Association; Association of American Medical Colleges; National Board of Medical Examiners; Federation of State Medical Boards; American Hospital Association.

The following officers were elected: president, Dr. Louis B. Wilson, Rochester, Minn.; vice president, Dr. J. S. Rodman, Philadelphia, and secretary-treasurer, Dr. Paul Titus, Pittsburgh.

No definite authority is given to the new organization. It is intended that it shall act in an advisory capacity to such organizations as may seek its advice concerning the coordination of the education and certification of medical specialties. No action taken by this board shall be binding upon any member organizations. Provision is made for additional representation of examining boards in other specialties elected from or appointed by the national societies in that specialty together with representation from the related section of the American Medical Association.

The control of unqualified specialists practicing in hospitals was one of the reasons for the formation of the council on community relations and administrative practice of the American Hospital Association. One of its important committees, under the direction of Dr. R. C. Buerki, State of Wisconsin General Hospital, Madison, is concerned with hospital medical practice. Doctor Buerki has been representing the American Hospital Association in the conferences out of which the Advisory Board on Medical Specialties developed.

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Servel climate-control makes friends and builds patronage for the hospital. Allows surgeons to work with greater speed and skill. Insures patients' comfort even in extreme weather. Servel offers *practical, economical* equipment for single rooms or multiple installations.

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Servel's Humidraft chilling unit ends costly food waste. Keeps the air inside refrigerators *cold, moist, morning*. Protects the full-flavored freshness of meats, seafood, milk, fruits, vegetables—for days, even weeks. Prevents dehydration, discoloration, contamination.

✓ WATER COOLING . . . ICE MAKING . . . ICE CREAM CABINETS

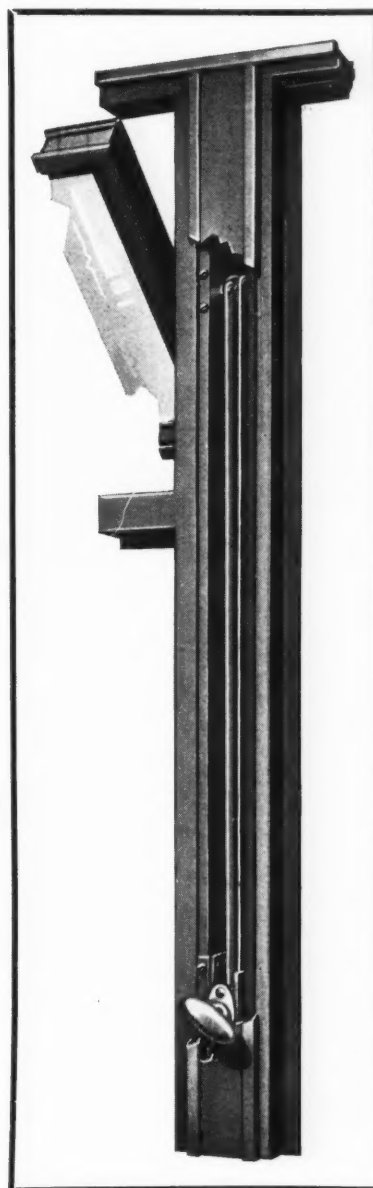
Servel's powerful refrigerating machine units eliminate the labor, muss and expense of old-fashioned cooling methods. In the X-ray laboratory or the diet kitchen, they provide a complete, dependable answer for every low-temperature need.



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PERSONALS

ALIDA M. JACOBSON has been appointed superintendent of Bellin Memorial Hospital, Green Bay, Wis. During the past year MISS JACOBSON has served as acting superintendent of Nebraska Methodist Episcopal Hospital, Omaha, Neb.

BARBARA WATSON has been appointed acting superintendent of South Haven City Hospital, South Haven, Mich.

MARIE C. GRAY, who has been acting superintendent of Camden County General Hospital, Grenlock, N. J., for the past year, has been named superintendent of the hospital.

KATHERINE M. ALTLAND is now superintendent of Monticello Hospital, Monticello, N. Y.

ELIZABETH MCCLELLAN has been named superintendent of Haywood County Hospital, Waynesville, N. C.

REV. GEORGE T. LUMPKIN, superintendent of North Carolina Baptist Hospital, Winston-Salem, N. C., for the past eleven years, died suddenly on January 24, as the result of a heart attack.

DR. FREDERIC G. SANFORD, owner and founder of Sanford Hospital, Jersey Shore, Pa., died recently in Johns Hopkins Hospital, Baltimore. DOCTOR SANFORD was fifty-five years of age.

MARGARET J. ROBINSON, formerly superintendent of Montefiore Hospital, Pittsburgh, died suddenly on February 2 at the home of her sister in Muskegon, Mich. MISS ROBINSON was active in the hospital field for many years and was a frequent contributor to *The Modern Hospital*.

J. H. GRIESEMER, superintendent of Citizens General Hospital, New Kensington, Pa., was killed in an automobile accident on February 5. MR. GRIESEMER, who was forty-one years of age, was formerly superintendent of Allentown State Hospital, Allentown, Pa. He had been in charge of the New Kensington institution for the past three years.

DR. J. T. REDWINE, for nine years associated with Newberry State Hospital, Newberry, Mich., is now superintendent of Michigan Farm Colony for Epileptics, Wahjamega, Mich.

MRS. D. I. McNULTY, president of Morningside Hospital, Tulsa, Okla., is now serving as acting superintendent of the institution.

DR. DUDLEY DAWSON has been named superintendent of Alton State Hospital, Alton, Ill., effective February 15. He succeeds DR. J. C. STFWART.

RALPH LAMBERT has been named superintendent of Indiana School for the Blind, Indianapolis. MR. LAMBERT was formerly principal of the high school at Columbus, Ind.

DR. CHARLES A. NEAFIE, formerly health officer of Pontiac, Mich., has been appointed medical director of Pontiac General Hospital.

DR. FRANK N. GORDON, chief medical officer at the Hospital of the Veterans Administration Home, Dayton, Ohio, has been appointed manager of the new Veterans Administration Hospital, Fayetteville, Ark.

SISTER M. LORETTA was recently appointed superintendent, Andrew Kaul Memorial Hospital, St. Mary's, Pa.

HARRY P. LONG has been appointed superintendent of St. Luke's Hospital, Saginaw, Mich.

DR. JOHN A. HARTWELL has been appointed director of the New York Academy of Medicine to fill the vacancy left by the death of DR. LINSLEY R. WILLIAMS. DOCTOR HARTWELL served as president of the academy from 1929 to 1933.

JOHN B. BUSCHEMEYER has been appointed superintendent of Louisville City Hospital, Louisville, Ky.

DR. CHARLES C. HEDGES, formerly assistant superintendent of Johns Hopkins Hospital, Baltimore, has been appointed superintendent of Roosevelt Hospital, New York City, succeeding GEORGE W. M. STOCK, who resigned. DOCTOR HEDGES was superintendent of Babies' Hospital, New York City, until it became a part of Columbia-Presbyterian Medical Center.

DR. HOWARD K. PETRY has been named superintendent of Harrisburg State Hospital, Harrisburg, Pa., succeeding DR. E. M. GREEN, who retired from the superintendency recently because of poor health.

DR. J. B. COPELAND, a member of the staff at San Antonio State Hospital, San Antonio, Tex., has been appointed superintendent of Robert B. Green Memorial Hospital, San Antonio, succeeding SAIDEE N. HAUSMANN.

DR. FRANK A. STUBBLEFIELD, managing officer of Chester State Hospital, Menard, Ill., for twenty years, tendered his resignation on February 5.

DR. E. R. MAY has been named superintendent of the newly opened hospital at Southern Illinois Penitentiary, Menard, Ill.

J. H. MITCHELL has been appointed superintendent of Colonial Hospital, Rochester, Minn.

RUTH A. NELSON is the new superintendent of Plymouth Hospital, Plymouth, Wis.

S. K. HUNT, superintendent, Methodist Hospital, Pikeville, Ky., is now devoting half of his time to Methodist Episcopal Deaconess Hospital, Louisville, Ky.

Conference on Hospital Service Holds Meeting

The annual meeting of the American Conference on Hospital Service, held in Chicago on February 12, was addressed by Dr. Dean Lewis, Baltimore, president of the American Medical Association. Doctor Lewis devoted most of his talk to historical aspects of medicine. His paper was discussed by Dr. Arthur Tenney Holbrook, Milwaukee. Although Doctor Holbrook's talk bristled with controversial statements, no opportunity was given for general discussion.

The conference reelected the following officers: Major General Merritte W. Ireland, president; Rev. A. M. Schwitalla, first vice president; Dr. Ernest E. Irons, second vice president; Charles A. Wordell, treasurer, and Evelyn Wood, secretary.

Hospital Council Formed

A hospital council was formed in Scranton, Pa., at a meeting on February 16. L. R. Robbins, superintendent of Hahnemann Hospital, Scranton, is president of the new council.

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4 Does it insure an attractive floor? Huntington liquid floor soaps float the dirt to the surface, leaving the floor looking like new. Huntington waxes are high in wax content, and leave a gleaming, lustrous, protective surface, that is unmatched in beauty or durability.

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The OXYGENAIRE has been chosen to make this world cruise with the "Seth Parker."

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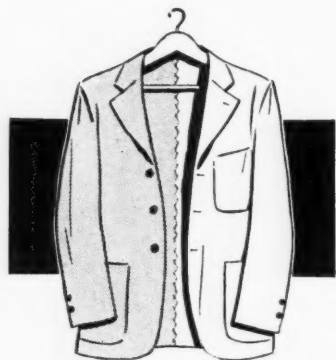
American Hospital Supply Corp.



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The Half Coat Test gives interesting proof of the long wear of Indian Head Cloth for uniforms. To make it, half of an Indian Head coat and half of a Duck coat are stitched together. The complete coat is then laundered time after time. Indian Head always wins. Long after the competing half has shown signs of serious wear, Indian Head's Permanent Finish* and firm weave are as good as new.

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Anchor Sheets

Nashua Blankets

NEWS FROM MANUFACTURERS

FLOOR MACHINES FOR HOSPITAL QUIET

Four sizes of floor machines for scrubbing and wax polishing are included in the new "100 Series" made by Finnell System, Inc., Elkhart, Ind. The brush ring diameters are 11, 13, 15 and 18 inches.

Each scrubber has a motor of sufficient horse power to give a brush ring speed of 230 revolutions per minute. The motor is offset from the brush housing to allow greater access under low objects, and a new flexibility of the machine permits operation in cramped areas. The wheels on all machines are rubber tired to be in accord with the improved quietness of operation. The water tank which is

Quietness of operation is a feature of this floor machine, which is made in four different sizes. The design permits access under low objects.



placed on the handle has a capacity of 1½ gallons, and in the two larger sizes, a tank with 3½ gallons capacity placed on the machine is optional.

A selection may be made from the four sizes of machines that will fit the needs of any hospital, the smaller machines to be used in cramped areas, and the larger ones for open spaces. It is also possible to use a smaller brush on one of the large machines, but it is impractical to use a large brush on a small machine because the brush speed that is essential to quick cleaning could not be obtained.

A Finnell-Kote Dispenser can be attached to the "100 Series" machines for waxing floors. The dispenser is used with wax having a high solid content. The wax is electrically heated until it liquifies, and is then fed to the floor in a thread-like stream just in front of the polishing brush.

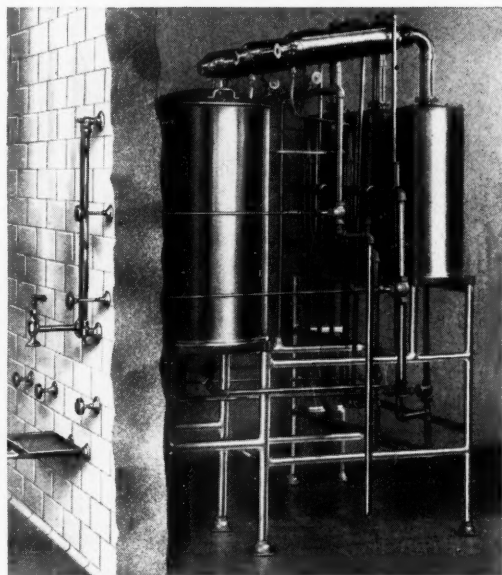
BEDPAN WASHERS INFRINGE PATENT

According to an announcement by the Hospital Supply Company, New York City, the Circuit Court of Appeals of the Southern District of New York has handed down a decision that the bedpan washers manufactured by the Kny-Scheerer Corporation infringe a patent originally granted to Leon L. Watters and assigned to the Hospital Supply Corporation.

A permanent injunction was authorized restraining the Kny-Scheerer Corporation from further manufacture of these fixtures. According to the announcement, "this decision has interest for all users of bedpan washers since it applies to users as well as manufacturers."

Prevent Reactions After Intravenous Infusions

WITH BARNSTEAD
TRIPLE-DISTILLED WATER



This Barnstead Triple Still (steam heated) with 50 gal. tank, installed in the Baltimore City Hospital, is shown with a concealed mounting.

PYROGENIC impurities, including bacterial toxins in water used for intravenous solutions—are entirely eliminated in many leading hospitals by the use of Barnstead triple-distilled water. This chemically and bacteriologically pure distillate is made by a multiple trapped and baffled distillation.

Barnstead single, double and triple distilling apparatus and storage equipment are constructed of the finest materials—copper and brass throughout. All parts that come in contact with the water are lined with pure block tin. Operation is continuous and automatic—simply requiring the manual opening of two valves. They are recommended by leading hospital authorities and approved by the American College of Surgeons. Write for prices and catalog.

And ask for a descriptive bulletin of the "Longwood" Hot Oil Instrument Sterilizer. Constant temperature at 302° F. is maintained electrically and automatically. The original sharp, delicate edges of instruments are retained.

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ORIGINAL AND SOLE MANUFACTURERS OF THE Genuine "Barnstead" Still

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SURGICAL CLEANLINESS

Made in stainless, polished chromium finish in three models—Double Portable, Single Portable, and Wall Type.

A line from you will bring, by mail, full particulars on the safety, convenience and economy of using—

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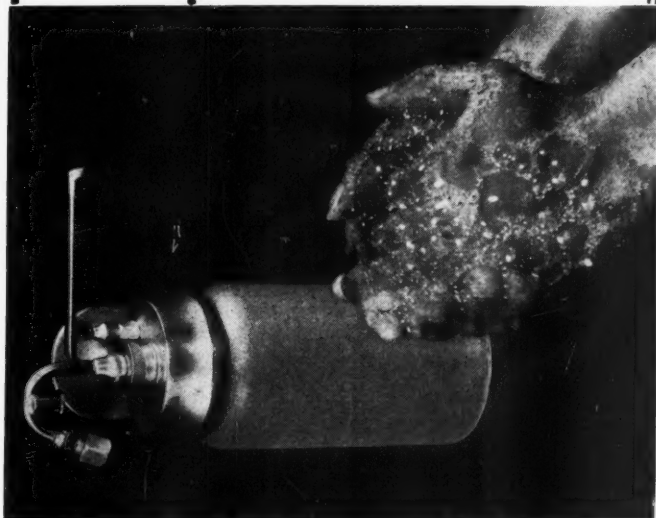
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SEPTISOL SOAP is made to meet exacting surgical needs. It protects the surgeons' hands against contamination and infection by thoroughly cleansing the skin and pores. In addition, SEPTISOL softens and lubricates the hands. Made of purest vegetable oils.

With SEPTISOL Dispensers the hands never come in contact with the dispenser. An adjustable control valve measures the flow of soap. Waste is eliminated.



MR. WATSON *says* "Particularly Impressed"



LONG WEAR, and soft comfort are just as important qualities in hospital sheets as they are in those used in hotels. Therefore, you'll find the comments of Mr. Roy Watson of interest. He is President and General Manager of the Kahler Corporation which owns and operates hotels, hospitals, a nursing school and even a model laundry in Rochester, Minnesota. He writes:

"We have been using Dwight Anchor Sheets and Pillow Cases for some time in our three hotels (Kahlen, Zumbro and Damon), and find them most satisfactory. We are particularly impressed by the superior quality of Dwight Anchors."

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It's both the luxurious texture of Anchor Sheets and their long wear that dictates their selection by hotels and hospitals. They go through laundering after laundering without weakening . . . stand up after years of hard usage. The initial cost is reasonable, and their long service cuts down replacement costs. A sure way to keep your average of sheet costs down is to standardize on Anchor Brand.



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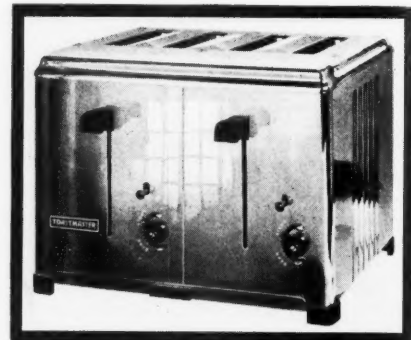
Indian Head Fabrics Nashua Blankets

UNIFORMLY BROWNED TOAST

A two-slice and a four-slice Toastmaster, made by the Waters-Genter Company, Minneapolis, are of the heavy duty, self-timing type that may be used on the hospital floor and in the diet kitchens.

The Flexible Clock timing device is a self-accelerating mechanism that gradually decreases the time that bread remains in the toaster, thus giving uniformly toasted slices. If the toaster is started cold the first batch will be finished in 105 seconds, the second batch in 85 seconds and the third batch in 75 seconds. These figures give an approximate time ratio, and indicate the saving in electrical current that is achieved by taking advantage of the accumulated heat of the machine from previous use. The

This is the four-slice model toaster. A timing device gradually decreases the time that bread remains in the toaster.



variation in toasting time is automatically set by the flexible clock so that uniform browning is obtained regardless of the number of batches toasted.

The four-slice model has two two-slice units that operate independently so that there is no wasted electricity if only two slices of toast are wanted. Both models are built along simple, straight lines and are chromium finished to make cleaning an easy operation. No special wiring is necessary.

JELL-O MADE WITHOUT BOILING WATER

A new form of Jell-O, made by General Foods Corporation, 250 Park Avenue, New York City, needs only hot water from the tap to dissolve it completely. Water at 130° F. instead of boiling water may be used, and the Jell-O may be placed in the refrigerator to cool immediately after preparation. This gives a further advantage because the setting time is shortened and dishes may be replenished quickly in an emergency demand.

The texture of the new product is tender and firm, and while it softens at room temperature, as any product of this nature will, it does remain in a firm condition over a reasonable service period.

The new Jell-O may be used in all Jell-O recipes now followed by chefs, and a number of new creations will be possible due to the lower temperature allowing more perishable fruits to be added to the mixture.

SCHOONER EQUIPPED WITH OXYGENAIRE

The American Hospital Supply Corporation announces that it has supplied an Oxygenaire for the cruise of the well known radio character, Phillips H. Lord, and his crew who, in a 250-foot windjammer, the *Seth Parker*, are sailing in quest of adventure. F. G. McGaw, vice president of the corporation, states that the Oxygenaire was a happy choice because it requires no electric current, having no motors or mechanical parts. Arrangements have been made to take along a large supply of oxygen and also to pick up tanks of oxygen at various ports.



OH, YES, DOCTOR!
THAT FEELS SO
MUCH BETTER!

The New Comfortable "Anode"

THROAT BAG

GIVES more comfort and efficiency. Silk-like finish, soft and pleasant. Curved to fit the throat without folds. Much greater hot or cold application area. No seams; all one piece. Does not deteriorate with age. 2 sizes—Child's and Adult's. Cap chained; prevents loss.

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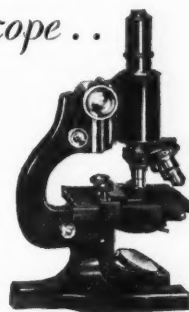


WE MADE THESE SMALLER SIZE SPENLO SUGAR SERVERS JUST FOR THE HOSPITAL

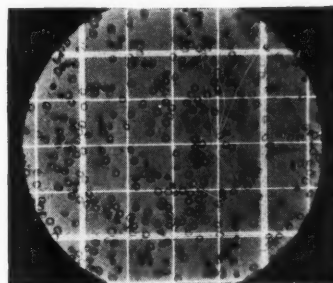
The smaller one—15 Spoonfuls—is for Tray Service, the medium size—30 Spoonfuls—for Nurses' Dining Room. There is a still larger size—60 Spoonfuls. The SPENLO SUGAR SERVER stands for Cleanliness and Sanitation. Neither Dust, Flies nor Soiled Spoons can contaminate the sugar.

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Haemacytometer under a
Microscope...



... then
you can SEE its superiority!



*W*E won't try to tell you in words how much better this new type "Bright-Line" Haemacytometer really is. Frankly, we've found our salesmen can't sell it that way—but if they hand one to a doctor or laboratory technician and have him put it into actual use under a microscope—the advantages are so obvious that he becomes enthusiastic.

A new method of manufacture makes possible this major improvement in haemacytometer construction. The glass is given a thin metal coating and then, by a special process, this coating is so firmly fixed to the glass that there is an inter-locking of the molecules of metal and glass. The haemacytometer lines are ruled in this metal, thus producing a counting chamber that shows bright lines on a grey background.

The advantages of the "Bright-Line" Haemacytometer in use are:

- (1) Lines are readily visible—no effort required to find them.
- (2) No need to stop down condenser—lines visible at any opening to the diaphragm.
- (3) There is a definite improvement in visibility of particles in solution.
- (4) Eye-strain is greatly decreased—a definite contribution to the comfort of the person making the blood count.

Folder M-59-M fully describes the construction and improvements of this new "Bright-Line" Haemacytometer. Write for your copy today!

Spencer Lens Company
BUFFALO NEW YORK

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"We have hired you as blacksmith to make surgical instruments for our hospital."

ABSURD?

Of course,—for you go to specialists for safe surgical instruments. Then why not go to experts for safe intravenous solutions? You can make solutions in your own hospital, but can you duplicate the care and precision and safety offered to you in Baxter's Intravenous Solutions at lower cost?

Baxter's Intravenous Solutions in Vacoliter dispensers have these definite advantages,—



Economy. . .	Stability. . .	Safety. . .
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5%, 10%, 20% and 25% D-Glucose in Water and Physiological Sodium Chloride Solutions have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Other strengths of D-Glucose as well as various strengths of D-Glucose in Physiological Sodium Chloride Solutions and Ringer's or Hartmann's Solutions are available. Write us of any solution problem or needs you may have.

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West Coast—Don Baxter, Inc., Glendale, Calif.
In New England—E. F. Mahady Company, Boston, Mass.

A CHECK FOR LAVATORY STALL DOORS

The constant banging of lavatory stall doors that are not checked damages both the partitions and the doors. A new pivot check for single swing stall doors, made by C. H. Newton and Co., 247 Atlantic Avenue, Boston, is designed to prevent the slamming of doors against partitions or frontals. Racking and jarring are thus eliminated and longer life is given to the stall because cracking and loosening of partitions and frontals are prevented.

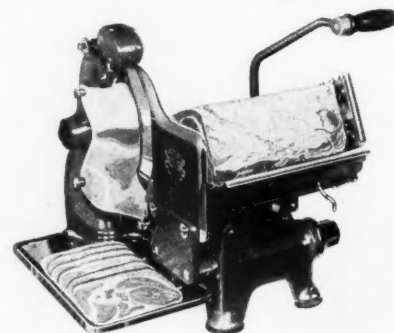
There are two models, one for self-closing doors where the door is closed and checked against the frontal, the other for self-opening doors where the door is opened and gently checked against the partition. Both models operate noiselessly. The checks may be installed on doors that are either flush with or below the top of the frontal. The pivot checks are self-lubricating, and nonrusting, and the closing speed is controlled by an easily accessible valve.

A NEW FOOD SLICER FOR HOSPITALS

A small, manually operated automatic food slicer is a recent product of the U. S. Slicing Machine Co., LaPorte, Ind. It is especially adaptable for the diet kitchen, nurses' home and small restaurant or as auxiliary equipment in the large restaurant.

The slicer has an 11-inch automatic adjustable feed that will produce slices up to $\frac{3}{4}$ of an inch thick, and the 10-inch chromium plated wheel blade will cut over a 6 $\frac{1}{2}$ -inch surface. An automatic double stone sharpener attached to the

This manually operated automatic food slicer is especially adaptable for the diet kitchen and the nurses' home.



slicer makes it possible to keep the blade sharp at all times. All moving parts of the machine are protected with guards. The machine is easy to clean because all parts that come in contact with food are chromium plated.

The wheel blade and the slicing mechanism are operated by a single lever handle, and the free-wheel control prevents waste and smearing in the cutting operation. The slicer may be used for cutting hot and cold meats, cheese, bread, cake, fruits, pickles and vegetables.

A SAFETY TREAD FOR REMODELED STAIRS

Hospital stairs may be modernized and resurfaced by applying a new type of nonslip safety tread made by the Norton Company, Worcester, Mass. The Alundum Rubber Bonded Safety Tread is composed of alundum aggregate bonded in a reinforced base of hard, tough rubber. Alundum aggregate consists of chips or granules of ceramically bonded alundum abrasive (aluminum oxid). It is not only extremely hard, but is irregular, angular and slightly porous. These qualities cause it to bond securely with the rubber, and give the tread a nonslip surface.

These safety treads may be used both for interior and exterior stairs. They come in various lengths and widths,

*Durable—Beautiful—Efficient***HOSPITAL
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These garments are made by Sharp & Smith especially for the Medical-Hospital trade. Each garment is designed by specialists, tailored with utmost care. Since Lotuscloth sews on ordinary machines, hospitals easily make their own sheets, mattress covers, etc., from the bolt.

PATIENT'S BIB. This bib should be standard equipment in every hospital. Used in dressing rooms, clinics, and to protect the patient during treatment, removal of dressings and minor operations. It is easily fastened by ties or snaps at the collar. Easily washed and kept clean. Always soft, smooth and light in weight, yet perfect in its protective qualities. These Bibs are made by us in white, light green or blue.



No. 101—36 x 36 inches, each.....\$2.25; Per dozen.....\$22.50



APRON. An apron which fits in wherever waterproof aprons are needed. Ideal for laboratory work, operating rooms, diet kitchens, dressing rooms, etc. Slips over the head and ties at the hips. Furnished in light or heavy weight Lotuscloth which is the perfect, all purpose hospital rubberized fabric.

No. 306—36 x 48 inches, each\$3.00
Per Dozen.....\$30.00



HOOVER APRON. This is a very popular apron, saves time and laundering expense. Has reversible front and snap fasteners on the belt. Furnished in white, light green and blue.

No. 600—As shown, except elbow length sleeves. Sizes 32 to 48. Each.....\$8.50
Per Dozen.....\$85.00



HOOVER COAT. A buttonless smock which doctors and internes will find best suited to their work in the hospital outside of the operating room. Your choice of white, light blue or green. A garment which lends distinction and individuality yet costs little when service and comfort are considered.

No. 700—Elbow length sleeves, reversible front, snap belt fastener. Each.....\$8.50
Per Dozen\$85.00

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It's ECONOMICAL to buy LOTUSCLOTH by the bolt. There's no waste or deterioration.

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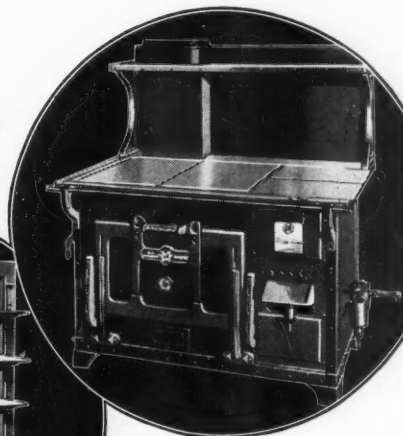
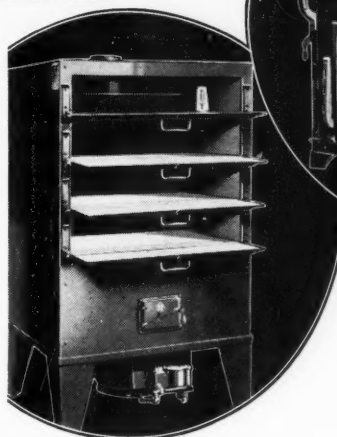
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Fuel costs reduced from 50% to 75%! Food shrinkage cut from 20% to as high as 40%! Consistently better, faster, more uniform and more satisfactory baking performance in every way! These are the actual results which hundreds of users are reporting with MW's amazingly efficient and economical Oil Burning Ranges and Bake Ovens. Clean, odorless, simple to operate and built to give years of unfailing service, this modern equipment will more than pay for itself in a year's time in fuel savings alone. Modern hospitals and sanitariums seeking to bring lower costs to their kitchens while improving the high quality of their cooking are invited to mail the attached coupon for full information.

MW Oil Burning Ranges and Bake Ovens are listed as standard by the Underwriters Laboratories.



Above, MW Model 251 Oil Burning Range. At left, MW Model 448 Bake Oven with a capacity for 48 loaves of bread or 24 ten-inch pies (4 tray unit).

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They are kept sanitary and clean in their Onliwon Cabinets that dispense but one towel at a time, protecting the remainder from dust and dirt as well as the germs that might be spread by casual handling.

And their economy is a feature that has earned the approval of everyone concerned with making budgets meet the needs of the present.

A.P.W. Onliwon Towels are a common-sense, efficient answer to the washroom needs of modern hospitals. They are fitting companions to the equally famous A.P.W. Onliwon Tissue.

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and can be placed directly over old wood, steel, concrete or stone steps. They may be installed by the carpenter or the maintenance man.

The alundum unit may be used to cover the entire depth of the tread or it may be applied as a nosing for six inches on the outer edge of the tread. If the latter procedure is followed the area back of the safety tread may be covered with linoleum, rubber tile, wood or any other flooring material. In either type of installation the riser may also be refinished so that a completely resurfaced and modernized stair would result.

NEW TRADE CATALOGUES AND PAMPHLETS

Johnson & Johnson—The hospital service book and catalogue, distributed by Johnson & Johnson, New Brunswick, N. J., is an instructive publication for hospitals. It deals with principles of economical buying and with the merits and standardization of ready-made dressings. It includes complete descriptions of absorbent cotton products, adhesive plaster, orthopedic specialties, operating room supplies, ligatures and sutures, nursery specialties and outpatient, clinic and pharmacy supplies.

National Lead Company—New Dutch Boy items are featured in four booklets issued by the National Lead Company, 111 Broadway, New York City. The six paint products, with the purposes of each defined in detail, are a soft paste white lead, a selected linseed oil, a wall primer, a flattening oil for use with white lead, a liquid drier and finally, colors in oil for tinting paints.

Troy Laundry Machinery Company, Inc.—The new Troy-McCreary curtain and blanket dryer is presented in a folder issued by the Troy Laundry Machinery Company, Inc., 100 Sixth Avenue, New York City. This combination machine is notable for its speed in drying as well as attractiveness and sturdiness of construction. A blanket finisher for improving the character of the laundered blanket, is also fully described in the folder.

The Hobart Manufacturing Company—An electrical cream whipper is pictured in a leaflet issued by The Hobart Manufacturing Company, Troy, Ohio. This machine may be secured in large or small sizes. The leaflet explains the advantages of using this device for whipping cream in large or small quantities.

Bausch & Lomb Optical Co.—A four-page booklet from the Bausch & Lomb Optical Co., Rochester, N. Y., describes and illustrates the company's new x-ray stereoscope. Accuracy of "third dimension" is one of the features claimed for this instrument, which aids diagnosis on the part of the roentgenologist.

Frick Company, Inc.—A data book issued by Frick Company, Waynesboro, Pa., describes refrigerating and ice-making machinery, including such equipment as ammonia machines, low pressure units and carbon dioxide machines. It concludes with a discussion of "Kold-Kan" refrigeration. Other literature is offered in a series of fifty and more bulletins entitled "Ice and Frost."

J. Sklar Manufacturing Co.—Its line of American made stainless steel instruments is illustrated by J. Sklar Manufacturing Co., 133 Floyd Street, Brooklyn, N. Y., in a catalogue which also describes the new Ralks' adjustable box lock. The company announces that instruments may be supplied with either the old style riveted box lock or the new adjustable patented lock which permits ease of adjustment, repair and cleaning.